

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Review of the Commission's Rules
Regarding the Pricing of Unbundled
Network Elements and the Resale of
Service by Incumbent Local Exchange
Carriers

WC Docket No. 03-173

Reply Declaration

of

LEE L. SELWYN

on behalf of

AT&T Corp.

January 30, 2004

TABLE OF CONTENTS

REPLY DECLARATION OF LEE L. SELWYN	1
Introduction	1
The principal “incentive” created by price cap regulation as implemented at both the federal and state levels is <i>profit-maximization</i> , and any “efficiency” incentives that may have been created are necessarily subordinate to – and sometimes in conflict with – that overarching goal.	4
ILEC claims of network efficiency as a result of price cap regulation assume “pure price caps,” which have never existed at either the state or federal levels.	8
In addition to intrastate/interstate productivity distinctions, removing purportedly “competitive” services from price caps allows ILECs to earn high returns while claiming the need for regulatory relief from “confiscatory rates” for price cap services.	12
Revenue shortfalls with respect to intrastate price capped services allow ILECs to increase revenues without increasing network efficiency.	15
ILEC provision of unregulated services not available as UNEs ensures that, under any price cap scheme, the ILEC network’s embedded costs will always exceed the costs of an efficient network designed to provide only services available as UNEs.	21
Setting UNE prices equal to embedded costs effectively restores rate of return regulation to the pricing of UNEs, and in so doing actually reverses whatever ILEC efficiency incentives might otherwise be ascribed to price cap regulation.	26
Econometric regression analyses submitted by several RBOC declarants confirm the existence of a strong statistically significant relationships between TELRIC-based UNE prices and ILEC “actual” costs, and demonstrate that TELRIC principles are being consistently applied by state commissions.	28
Contrary to how they are being portrayed, the econometric models introduced by the RBOC declarants affirmatively support the use of TELRIC as a basis for UNE pricing.	40

TABLE OF CONTENTS (continued)

If ILECs actually considered wireless and other intermodal alternatives to wireline services to be serious competitive threats, they would be <i>encouraging</i> CLECs to utilize ILEC networks rather than affirmatively seeking regulatory approval to exclude CLECs from accessing ILEC network elements.	44
ILECs are not required to, and do not, make specific investments in order to provide UNEs to CLECs, and as such incur no UNE-specific risks.	47
The ILECs misinterpret and misapply the Commission’s “risks of a facilities-based competitive market” cost of capital requirement to imply that the level of “investment risk” should be that which would confront an entirely hypothetical and fictitious “UNE-only” carrier.	51
There is no basis to conclude that the risks of CLEC “cancellation” of UNEs are any greater than the risks, already included in the ILEC’s cost of capital, that an end user retail customer will discontinue the ILEC’s service.	52
Any “carrier of last resort” risks that an ILEC might confront, to the extent not fully offset by its incumbency advantages and economies of scale and scope, are no different as between UNEs and end user retail services, and have in any event been incorporated into the financial market’s evaluation of ILEC securities.	57
Verification	60

Attachments

- 1 Verizon policies regarding provision of UNEs and retail services where adequate facilities do not exist
- 2 Verizon *Ex Parte* letter, CC Docket No. 01-338, October 18, 2002
- 3 New Hampshire Public Utilities Commission, Docket No. 02-110, Order No. 24,265, January 16, 2004 (Excerpt)

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REPLY DECLARATION OF LEE L. SELWYN

Introduction

Lee L. Selwyn declares and says as follows:

1. My name is Lee L. Selwyn; I am President of Economics and Technology, Inc. ("ETI"), Two Center Plaza, Suite 400, Boston, Massachusetts 02108. I submitted a Declaration in this matter on December 16, 2003. I have been asked by AT&T Corp. to address and respond to certain issues raised by ILEC declarants Aron and Rogerson for SBC, Weisman for Qwest, Kahn and Tardiff for Verizon, Eisenach and Mrozek for USTA, Taylor, Banerjee and Ware (of NERA) for BellSouth filed in response to the *Notice of Proposed Rulemaking* ("NPRM" or "Notice") issued by the Commission in this proceeding.

2. The ILECs and their witnesses focus upon the “presumptive efficiency” of existing BOC networks as a basis for their contention that “actual” costs or the “replacement cost” of the existing network provide a more realistic basis for setting UNE rates than what they seek to characterize as hypothetical TELRIC network scenarios. They present numerous “studies” purporting to compare current TELRIC rates to other measures of cost. In so doing, the ILECs have ignored the reality of price caps, of ILEC UNE pricing behavior, of incentives to handicap competitors, and have in particular ignored this Commission’s own guidelines for the use of various costing models. ILEC witnesses claim that the years of price cap regulation and increasing competition have created optimally efficient ILEC networks, such that TELRIC rates should be based upon *current* network architecture. Their discussions of the effects of “pure price cap” regulation are, however, misplaced, and are entirely irrelevant to the current situation, since “pure” price caps nowhere exists. Indeed, far from promoting network efficiency, the principal “incentive” created by the far-less-than-pure price cap regulation as implemented at both the federal and state levels is *profit-maximization* that operates to encourage ILECs to divert investments and productivity enhancements away from their core, regulated business and over to *nonregulated* lines of business and, where possible, to shift costs back to regulated services.

3. In support of their claims that TELRIC prices are “arbitrary” and confiscatory, ILEC witnesses present studies purporting to compare ILEC “costs” (as variously defined) to TELRIC-based prices. Although the econometric regression analyses submitted by several RBOC declarants have been portrayed as demonstrating the *absence* of any relationship between

1 TELRIC and their various conceptions of “cost,” in reality these studies actually *confirm the*
2 *existence of strong statistically significant relationships between TELRIC-based UNE prices and*
3 *ILEC “actual” costs*, and demonstrate that TELRIC principles are being consistently applied by
4 state commissions – i.e., *precisely the opposite of how the ILEC witnesses are portraying the*
5 *results of their regression analyses*. The unrealistic normative expectations that these ILEC
6 witnesses have posited as between various cost predictors used in their models and TELRIC-
7 based prices are nothing more than contrived “straw men” that serve no purpose other than to
8 obscure the strong support for TELRIC that their models actually reveal.

9
10 4. Finally, I discuss various ILEC claims regarding the need for an inflated “risk-adjusted”
11 cost of capital that the ILECs argue would recognize the risks they confront under current market
12 conditions. When correctly analyzed, however, it is apparent that neither competition, network
13 deployment, nor any so-called “carrier of last resort” obligations require any further adjustment
14 to the ILECs’ cost of capital. If the ILECs actually considered wireless and other intermodal
15 alternatives to wireline services to constitute serious competitive threats, they would be working
16 to *encourage* CLECs to utilize the ILEC networks rather than affirmatively seeking regulatory
17 approval to exclude CLECs from accessing ILEC network elements. By operating as combined
18 retail/wholesale companies, the ILECs misinterpret and misapply the Commission’s “risks of a
19 facilities-based competitive market” cost of capital requirement to imply that the level of
20 “investment risk” should be that which would confront an entirely hypothetical and fictitious
21 “UNE-only” carrier. Finally, there is no basis to conclude that the risks of CLEC “cancellation”

1 of UNEs are any greater than the risks, already included in the ILECs' cost of capital, that an end
2 user retail customer will discontinue the ILEC's service.

3
4 **The principal "incentive" created by price cap regulation as implemented at both the**
5 **federal and state levels is *profit-maximization*, and any "efficiency" incentives that may**
6 **have been created are necessarily subordinate to – and sometimes in conflict with – that**
7 **overarching goal.**
8

9 5. In support of their persistent contention that embedded costs (referred to by the ILECs as
10 "actual costs") rather than TELRIC provide the correct basis for pricing UNEs, several BOC
11 declarants argue that ILEC embedded costs – and, by extension, the existing network architecture
12 and configuration – should be treated as *presumptively* efficient. They contend that, after more
13 than ten years of price cap regulation, and years of growing intermodal competition, the legacy
14 inefficiencies in ILEC costs and practices acquired under rate of return regulation have by now
15 been weeded out.¹ Indeed, the UNE pricing frameworks being proposed by the various ILECs
16 and their witnesses rest upon the *assumption* that existing architectures, practices and costs are
17 necessarily sufficiently efficient that ILEC embedded ("actual") costs, or the reproduction cost of
18 the existing ILEC network, and not TELRIC, provide a more accurate basis for setting
19 compensatory and economic UNE rates. According to Drs. Aron and Rogerson:

1. See, e.g., Declaration of Dennis L. Weisman on behalf of Qwest Corporation, filed December 16, 2003 ("*Weisman (Qwest)*"), at paras. 37-43; "The Economics of UNE Pricing" attached as Attachment A to the Comments of SBC Corp., December 16, 2003 ("*Aron/Rogerson (SBC)*") at 38-43, and RBOC comments generally.

1 It is reasonable to infer that the current network configuration reflects acceptably
2 efficient resolutions to those tradeoffs because ... virtually all of the large ILECs across
3 the country operate under price cap regulation, which provides high-powered incentives
4 for cost-reducing behavior, and these companies are held accountable by their
5 shareholders to perform on those incentives.²
6

7 Likewise, Drs. Kahn and Tardiff claim that competition has contributed to fully efficient ILEC
8 networks:

9
10 ...[B]ecause of the incentives created by competitive pressure from intermodal sources,
11 as well as price cap regulation, there is every reason to believe that ILECs have made,
12 and are making, efficient choices in terms of technology deployment, network
13 configuration and the like. As a result, the costs of their existing networks are the most
14 reliable measure of the “efficient” costs of providing UNEs.³
15

16 The ILECs further contend that such inefficiencies that may still be present in their networks
17 result either from the reality of an ILEC’s network architecture⁴ or from their “carrier of last
18 resort” obligations, and as such are properly passed on to CLECs through wholesale UNE rates.⁵
19

20 6. These contentions notwithstanding, there is no basis to assume that the 2004 ILEC
21 network architectures, practices and costs are efficient or represent unavoidable inefficiencies of

2. Aron/Rogerson (SBC), at 44.

3. Declaration of Alfred E. Kahn and Timothy J. Tardiff, filed on behalf of Verizon, December 16, 2003 (“*Kahn/Tardiff (Verizon)*”), at para. 9.

4. See, e.g., Aron/Rogerson (SBC), at Section 3.

5. See, e.g., Declaration of NERA Economic Consulting, filed in support of BellSouth, December 16, 2003 (“*Taylor/Banerjee/Ware (BellSouth)*”), at paras. 22-24, 60; Weisman (Qwest), at para. 53.

1 ILEC networks. Particularly with respect to the *specific Sec. 251/252 services that they are*
2 *obligated to provide to CLECs*, the ILECs face few incentives to improve network efficiency
3 and, indeed, confront significant incentives to handicap competitive providers with high UNE
4 costs and artificial incentives to inefficient CLEC facilities-based investment. The reality behind
5 ILEC claims of network efficiency is that, while some improvement in overall operational
6 efficiency of ILEC networks might be a *byproduct* of price cap regulation and/or nascent
7 competition, in reality the principal “incentive” created by price cap regulation as implemented at
8 both the federal and state level is *profit-maximization*. The pursuit of operational and network
9 efficiencies, best practices, and other productivity gains is only one aspect of an overall profit-
10 maximization strategy – and is likely far less important, and thus subordinate to, other ILEC
11 incentives.

12
13 7. ILEC profit maximization efforts include such tactics as seeking regulatory concessions
14 and legislation that, among other things, would remove certain services from price cap regulation
15 altogether and provide increased pricing and earnings flexibility. ILECs engage in protracted
16 litigation against competitors that, even if ultimately unsuccessful for the ILECs, nevertheless
17 works to increase their rivals’ costs and overall business risks and uncertainty. ILECs are highly
18 selective in their implementation of specific efficiency measures, affording the lowest priority to
19 initiatives that would reduce the costs of UNEs or that would, for example, shorten the time or
20 reduce the potential for error in the fulfillment of orders for UNEs and access services. Such
21 tactics work to maintain high prices for specific essential CLEC inputs, making CLECs that
22 much less competitive and thereby protecting ILEC market shares, revenues and profits.

1 8. Pursuit of operational efficiency may well be a component of an overall ILEC profit
2 maximization strategy, but the achievement of long run efficiency vis-à-vis local service is far
3 from being the only, and is certainly not the most important, means of maximizing profits, and
4 must compete with the conflicting incentive to protect the ILECs' legacy customer base from
5 competitive encroachment. Price cap regulation almost always brings with it far less regulatory
6 oversight than had prevailed under rate of return regulation, facilitating ILEC efforts to engage in
7 precisely these types of tactics. For example, when individual ILEC services are "reclassified"
8 as "competitive" and as a result are removed from the price cap, in most cases no effort is made
9 to identify and to remove the costs of such "reclassified" services from the aggregate cost of
10 services still subject to price regulation. By shifting revenues out of price caps without a
11 corresponding removal of the costs of the "reclassified" services, ILECs are able to – and
12 regularly do – report depressed earnings and based thereon seek further regulatory concessions
13 and adjustments to their price cap rate adjustment mechanism. These various devices all work to
14 *increase* costs that ILECs assign to price cap regulated services. If UNEs were to be priced on
15 the basis of *current, in-place network configurations and operational practices, ILECs would be*
16 *able to elevate UNE rates by targeting their efficiency improvements away from these services.*
17 The use of forward-looking TELRIC works to insulate CLECs from the effects of these schemes.
18 However, if embedded "actual" costs or reproduction costs were to be substituted for TELRIC,
19 CLECs would not only be forced to bear the costs of ILEC inefficiencies, but would in fact bear
20 a *disproportionate amount of those inefficiencies* as they residually remain in the monopoly
21 services column.

ILEC claims of network efficiency as a result of price cap regulation assume “pure price caps,” which have never existed at either the state or federal levels.

9. Dr. Weisman attempts to rationalize the use of embedded (“actual”) costs by advancing the proposition that an ILEC that has been operating under “pure” price cap regulation for an extended period of time can be viewed as being “presumptively efficient.” He explains:

... The fact that embedded/historical costs are not used to set actual rates for unbundled network elements does not imply that such cost measures do not contain potentially useful information in evaluating the reasonableness of TELRIC measures. For example, suppose that an incumbent provider has been operating under *pure price cap regulation* over a prolonged period of time. A pronounced difference between the current, actual cost of provisioning a loop and the corresponding hypothetical TELRIC measure may allow for a reasonable inference to be drawn that the TELRIC methodology or calculation is suspect. The institutional history is important here; just as we expected the Olympic sprinter to run as fast as he was able in past races, we expect the firm under pure price cap regulation to be as efficient as it knows how to be. Moreover, even the Olympic sprinter that runs flat out in every race knows that his times will likely be better when his competition is stiffest. This is the fundamental failing of hypothetical TELRIC—it assumes that we can determine the “fastest sprinter” without actually running the race.⁶

Dr. Weisman’s reference to “pure price cap regulation” is particularly noteworthy. He defines the term as follows:

Pure price cap regulation means that there is no *ex post* sharing of earnings with consumers. Except where otherwise noted, the terms price cap regulation and pure price cap regulation are used interchangeably.⁷

6. Weisman (Qwest), at para. 33, footnotes omitted, emphasis supplied.

7. *Id.*, at fn. 59.

1 From the definition that he advances, it appears that Dr. Weisman has a less-than-thorough
2 understanding as to exactly what the “pure” in “pure price cap regulation” means, and his
3 suggestion that “the terms price cap regulation and pure price cap regulation [may be] used
4 interchangeably” demonstrates the seriousness of his misunderstanding. The type of price cap
5 regulation currently in effect at the state and federal levels is a fundamental threshold question
6 that must be addressed before Dr. Weisman or other ILEC witnesses conclude that it assures
7 ILEC network efficiency.

8
9 10. While it is correct that under a “pure” price cap plan “there is no *ex post* sharing of
10 earnings with consumers,” and all related costs and revenues are capped, that is only part of this
11 *theoretical* form of incentive regulation. Under traditional rate of return regulation, rates were
12 *based* upon costs; if costs went up, rates increased, and if they went down, so too did rates.
13 Proponents of price cap or other forms of incentive regulation argued that the “cost-plus” nature
14 of rate of return regulation eliminated any incentive on the part of the regulated utility to operate
15 efficiently, and indeed encouraged it to engage in “gold plating” of its assets as a means for
16 maximizing its profits. “Pure” price cap regulation is supposed to *permanently* sever the linkage
17 between rates and costs by tying rates to external conditions beyond management’s control, such
18 as economy-wide inflation and industry-wide productivity growth rates.

19
20 11. Unfortunately, and as I have discussed in detail in my December 16, 2003 Declaration,
21 the type of “price cap regulation” that has been implemented at both the federal and state levels is
22 anything but “pure.” Although the requirement to “share” excess earnings has been largely

1 removed from most price cap plans, an ILEC's failure to achieve a particular productivity target
2 has in virtually every instance been rewarded by reducing the target itself. To extend Dr.
3 Weisman's Olympic sprinter analogy, if the sprinter finds that he can no longer run a mile in four
4 minutes, the officials would simply move the finish line 300 feet closer to the starting point. If
5 the runner has a realistic expectation of this result, his incentive to run faster would clearly be
6 attenuated. Dr. Weisman asks:

7
8 Why would a regulated firm subject to price cap regulation over an extended
9 period of time choose to be less efficient than it knows how to be?⁸
10

11 The answer to this question is that the regulated firm would do exactly that – choose to be less
12 efficient than it knows how to be – if by so doing it is able to obtain permanent regulatory
13 concessions that enhance its profit opportunities for the long term.
14

15 12. Far more compelling than an incentive to operate efficiently, price cap regulation *as*
16 *actually implemented* confronts the ILECs with the incentive to engage in cost misallocation and
17 regulatory gaming. Dr. Weisman's notion of "pure" price caps might have some theoretical
18 merit if *all of the ILEC's operations were embraced by the price cap system*. In fact, of course,
19 price cap ILECs are permitted to operate under a hybrid arrangement, partially subject to a price
20 cap and partially afforded pricing flexibility or relieved of the burden of price regulation
21 altogether. The bifurcation of regulation between state and federal jurisdictions only facilitates
22 the regulatory gaming opportunities. For example, in response to the FCC's last *Price Cap*

8. *Id.*, at para. 43.

1 *FNPRM*,⁹ several commenting parties presented evidence that interstate services exhibited
2 significantly higher rates of productivity growth than intrastate services. These parties had urged
3 that a price cap indexing mechanism that was to be applied solely to *interstate* services should be
4 based upon jurisdictionally *interstate-only* productivity growth.¹⁰ The ILECs countered that the
5 development of jurisdictionally separate productivity measures was economically meaningless.¹¹
6 The FCC adopted the ILECs' position, and based the productivity offset (X) factor upon
7 *unseparated* total company productivity experience. In fact, productivity growth rates for
8 interstate services are and continue to be far greater than for intrastate services, as demonstrated
9 by the double-digit *interstate* rates of return that the ILECs have been able to realize under price
10 caps.¹² Incredibly, and notwithstanding their contentions to the FCC as to the *impossibility* of
11 jurisdictionally separated productivity analyses, the very same ILECs have regularly demanded

9. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, *Further Notice of Proposed Rulemaking*, FCC 99-345, 14 FCC Rcd 19717 (1999) ("*Price Cap FNPRM*").

10. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Comments of the Ad Hoc Telecommunications Users Committee, January 7, 2000, at Sections VI & VIII; *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Comments of AT&T Corp., filed January 7, 2000, at 8-11.

11. *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Access Charge Reform*, CC Docket No. 96-262, Reply Declaration of William E. Taylor, Attachment A to the Reply Comments of USTA, filed January 24, 2000, at paras. 6-19.

12. *In Re AT&T Corp., AT&T Wireless, The COMPTTEL/ASCENT Alliance, eCommerce and Telecommunications Users Group, and the Information Technology Association of America*, United States Court of Appeals for the District of Columbia Circuit, No. 03-1397, Petition for Writ of Mandamus, November 5, 2003 ("*AT&T Petition for Writ of Mandamus*"), at 15-16, citing interstate rates of return of more than 38%.

1 *intrastate-only* productivity offsets in state price cap proceedings.¹³ Under this form of “pure”
2 price caps, the ILECs are allowed to retain the double-digit returns on their interstate services,
3 while concurrently demanding – and obtaining – reductions in their intrastate X-factors or, in a
4 number of cases, elimination of any productivity offset altogether. Put simply, rather than
5 becoming more efficient, the ILECs simply get the finish line moved up.

6
7 **In addition to intrastate/interstate productivity distinctions, removing purportedly**
8 **“competitive” services from price caps allows ILECs to earn high returns while claiming**
9 **the need for regulatory relief from “confiscatory rates” for price cap services.**
10

11 13. ILECs are able to “game” the current price cap system as a result of the hybrid
12 arrangement whereby ILECs are enabled to utilize the same common network infrastructure and
13 corporate resources to provide both regulated and nonregulated services. Many states, however,
14 provide little or no regulatory oversight for nonregulated, purportedly “competitive” services.
15 Not surprisingly, ILECs often *raise* prices on these “competitive” services after they have been
16 removed from price caps.
17

13. See, e.g. Rebuttal Testimony of Richard G. Petzold (Bell Atlantic-DC), District of Columbia Public Service Commission, Formal Case No. 814, Phase IV, September 15, 1995, at 18; Amended Direct and Rebuttal Testimony of Dr. William E. Taylor (Carolina Telephone and Telegraph Co. and Central Telephone Co.), North Carolina Utilities Commission, Docket No. P-7, Sub 825; P-10, Sub 479, February 9, 1996, at 38.

1 14. For example, SBC Illinois (then Illinois Bell) was permitted to be regulated under price
2 caps beginning in 1994.¹⁴ At that time, the Illinois Commerce Commission set the company's X-
3 factor at 4.3%.¹⁵ However, over the years, a succession of services were reclassified as
4 "competitive" and removed from price cap regulation. As I had noted in my December 16, 2003
5 Declaration, SBC Illinois frequently *increased* the prices of services shortly following such
6 reclassifications, as noted in a 1998 report by the Illinois Commerce Commission Staff.¹⁶

7
8 15. Since both high revenue "reclassified" services and price cap regulated "basic" services
9 are provided on a highly integrated basis utilizing the same pool of common network
10 components, ILECs are able to shift joint and common costs between price cap and non-price cap
11 services, thus reflecting higher network costs to be recovered through fewer revenue sources. By
12 shifting costs to their regulated operations, ILECs can and do portray earnings shortfalls for those
13 services subject to a price cap while generating excessive earnings on their nonregulated,
14 purportedly "competitive" services.

14. *Illinois Bell Telephone Company: Petition to Regulate Rates and Charges of Noncompetitive Services Under An Alternative Form of Regulation. Citizens Utility Board -vs- Illinois Bell Telephone Company: Complaint for an investigation and reduction of Illinois Bell Telephone Company's rates under Article IX of the Public Utilities Act*, Illinois Commerce Commission Docket Nos. 92-0448 and 93-0239 Consol., *Order*, Rel. October 11, 1994.

15. *Id.*

16. Declaration of Lee L. Selwyn, filed on behalf of AT&T, December 16, 2003 ("*Selwyn (AT&T)*"), at fn. 16, citing, Telecommunications Division, Illinois Commerce Commission, *Staff Report on Competitive Reclassification*, issued November 25, 1998.

1 16. Indeed, the ILECs have done just that in a pleading submitted on January 9, 2004 to the
2 United States Court of Appeals for the District of Columbia Circuit. In their effort to argue that
3 the excessive double-digit rates of return that RBOCs are currently earning on their interstate
4 special access services – the majority of which are no longer subject to price caps – are not
5 indicia of either excessive pricing or market power, the RBOCs claim that the costs of these
6 primarily flexibly-priced services are being allocated to those that are still subject to specific
7 price constraints pursuant to the so-called *CALLS* settlement:¹⁷

8
9 The problem of mismatches is particularly acute where special access is
10 concerned, because the rules assign *revenues* associated with DSL services and
11 interstate packet-switching services to the special-access element but assign a
12 significant portion of the associated interstate *costs* to other elements. This leads
13 to inflated rate-of-return numbers for special-access services.¹⁸
14

15 Not surprisingly, the supposed over-allocation of costs to price-regulated services enables the
16 RBOCs to *portray* these as being provided at a loss:

17. *In the Matter of Access Charge Reform*, CC Docket No. 96-262; *Price Cap Performance Review for Local Exchange Carriers*, CC Docket No. 94-1; *Low-Volume Long Distance Users*, CC Docket no. 99-249; *Federal-State Joint Board On Universal Service*, CC Docket No. 96-45; *Sixth Report and Order in CC Docket Nos. 96-262 and 94-1*; *Report and Order in CC Docket No. 99-249*; *Eleventh Report and Order in CC Docket No. 96-45*, FCC No. 00-193, 15 FCC Rcd 12962 (2000) (“*CALLS Order*”)

18. *In re AT&T Corp. et al, Petitioners, On Petition for Writ of Mandamus to the Federal Communications Commission*, Response of Intervenors in Opposition to the Petition for a Writ of Mandamus, United States Court of Appeals for the District of Columbia Circuit, No. 03-1397, filed January 9, 2004 (“*BOC Mandamus Response*”), at 14, footnotes omitted.

Verizon's ARMIS-reported switched-access return in 2001 was a mere 7.81 percent. For the 12-month period ending August 31, 2002, SBC's regulatory rate of return for switched-access services was a negative 3 percent.¹⁹

Revenue shortfalls with respect to intrastate price capped services allow ILECs to increase revenues without increasing network efficiency.

17. To recover earnings shortfalls (precipitated either by the removal of high revenue services from price caps, other methods of misallocating costs and revenues, or through an actual failure to realize network efficiencies), ILECs often demand the ability to recover alleged earnings deficiencies associated with regulated services with favorable revisions to their price cap systems. ILECs regularly rely upon *realized* results as the basis for adjustments to their price cap plans. Rather than permanently de-linking rates from costs, such reliance upon realized results makes price caps nothing more than a somewhat more cumbersome variant of traditional RORR.

18. One particularly popular device is to offer "updated" total factor productivity ("TFP") studies that portray less, rather than more, productivity growth than had been present at the time that the initial X-factor had been set. Consider the following: The Arizona Corporation Commission is currently considering Qwest's "Amended Renewed Price Regulation Plan" in Docket No. T-01051B-03-0454. In its September 26, 2003 filing, Qwest states:

19. *Id.*, at 14-15, footnotes omitted.

1 In 2001, the Arizona Corporation Commission (“ACC” or “Commission”)
2 adopted a Price Regulation Plan for Qwest. ... The adoption of this price
3 regulation plan was an important first step by the Commission to move away from
4 traditional utility-style regulation. That plan provided for Qwest to request
5 renewal “under current terms and conditions” or to request renewal with revisions.
6 *Qwest is filing this notice to request renewal with revisions.* Qwest is proposing
7 to continue the evolution of price regulation in Arizona to reflect both competitive
8 realities and the need for greater pricing and packaging flexibility. *The revisions*
9 *Qwest is seeing also give the Company greater assurance of an opportunity to*
10 *recover the fair market value of its assets as competition with all of its service*
11 *offerings intensifies. The revisions are in line with the evolution of price*
12 *regulation plans elsewhere.*

13
14 ...

15
16 The productivity factor used in the [2001] Settlement Agreement was based on an
17 analysis of Qwest’s historic Arizona productivity during a four-year period from
18 1995 to 1998. Using the same method incorporated in the calculation of the
19 productivity factor used in the Settlement Agreement, Confidential Attachment B
20 *computes Qwest’s average annual Arizona productivity during a four-period from*
21 *1999 through 2002. ...*²⁰

22
23 19. Qwest/Arizona is hardly unique. In fact, the *pervasive pattern* of ILEC price cap
24 renewal activity has involved efforts to reduce or eliminate the productivity offset factor
25 altogether. For example, in 1995, during the California PUC’s second triennial review of the
26 regulatory framework for local exchange carriers, Pacific Bell proposed to discontinue the use of
27 the price cap formula in its entirety, or as an alternative, to replace the existing productivity

20. , *In the Matter of Qwest Corporation’s Amended Renewed Price Regulation Plan*, Arizona Corporation Commission Docket No. T-01051B-03-0454, “Qwest Corporation Amended Renewed Price Regulation Plan,” filed September 26, 2003, at 1-2, emphasis supplied.

1 factor of 5%²¹ with a productivity factor of 2.1%. In his testimony, Pacific Bell Witness Dennis
2 W. Evans highlighted the reduction in the revenue growth and decrease in net income results that
3 Pacific Bell had exhibited since the adoption of the incentive-based regulatory framework in
4 1989, as well as the overall decline of the economic environment as support for Pacific Bell's
5 record of lower productivity.

6
7 ... [A]n examination of our revenues provides valuable insight into the impact of
8 incentive-based regulation. ... In the five year period under incentive-based
9 regulation (1990-1994), Pacific's revenue growth was significantly reduced,
10 growing at only .2% CAGR [Compound Annual Growth Rate]. ... Pacific
11 experienced the lowest total revenue growth of any of the RBOCs from the end of
12 1989 through 1994...²²

13
14 ... Pacific's net income performance under incentive regulation was, at best,
15 mediocre. ... Pacific's net income for the 1984-1989 time period grew at 7.2%
16 CAGR, while Pacific's net income for the 1990-1994 time period declined at a -
17 2.2% CAGR.²³
18

19 Pacific Bell's witness continued:

20
21 As the [California Public Utilities] Commission evaluates recommended changes
22 to the price cap formula, it is important to recall that California's economic
23 environment is considerably different than that which existed in the period
24 immediately preceding 1989 when the incentive framework was established. As

21. *Re Alternative Regulatory Frameworks for Local Exchange Carriers, Interim Opinion on Phase II*, CPUC Decision No. 89-10-031, I.87-11-033, October 12, 1989.

22. Dennis W. Evans, *Pacific Bell's Responses to the Issues in Phase I of the Investigation 95-05-047*, This report was submitted as an attachment to Evans' Testimony on behalf of Pacific Bell, in CPUC Investigation No. 95-05-047, September 8, 1995, at 10.

23. *Id.*, at 12.

1 Dr. Schmalensee reports, “population, employment, and personal income” growth
2 rates are expected to be “considerably smaller than those that prevailed in the
3 early and late 1980’s.” Dr. Christensen states that “California is expected to
4 perform at or below the national average through 1997.” This change in
5 California economic growth affects the output growth for Pacific, and makes it
6 much more difficult to realize the high level of productivity necessary to offset the
7 unreasonable “X” factor and competition.

8
9 ...

10
11 Pacific must produce reasonable earnings and earnings growth in line with
12 investor expectations. This has not occurred since Pacific began operating under
13 the incentive-based regulatory framework.²⁴
14

15 By this testimony, Pacific Bell was expressly asking the California PUC to adjust the price cap
16 mechanism in light of these results. There is certainly nothing “pure” about that form of price
17 cap regulation. And by acting favorably on Pacific’s request, the PUC only reinforces the idea
18 that *inefficiencies* (as reflected in earnings shortfalls) will be rewarded, thus hardly creating any
19 incentive for *efficient* behavior.

20
21 20. Most recently, in an ongoing proceeding in Wisconsin PSC Docket 1-AC-193 that had
22 been initiated to review the current Commission productivity model, similar contentions were
23 advanced by SBC Wisconsin in support of its recommendation that the Commission should
24 either reduce the current productivity factor of 3% for monopoly services or leave it unchanged
25 while placing a ceiling on the productivity factor of 2% plus the change in GDPPI.²⁵

24. *Id.*, at 15.

25. *In the Matter of Rulemaking to Revise Wis. Admin. Code Chapter PSC 163*,

(continued...)

1 21. In its comments to the Wisconsin PSC, SBC Wisconsin supported the findings of a
2 Christensen Associates TFP study²⁶ that claimed that not only are Wisconsin ILEC productivity
3 growth rates significantly less than the productivity growth rates of the national ILEC industry,²⁷
4 but that SBC Wisconsin “under-performed the rest of the Wisconsin ILECs for the period 1996-
5 2001 (1.0% versus 1.9%),” and that “this disparity is primarily due to significantly lower output
6 growth for Wisconsin Bell, which is reflective of lower growth in revenues – especially from
7 switched access lines.”²⁸ Based upon these findings, the Christensen study concluded that:

8
9 If recent trends are indicative of future trends, the X factor of 2% and 3% set by
10 legislation will continue to be very challenging hurdles for Wisconsin ILECs.
11 Even if productivity growth increases to previous trend rates, the Wisconsin X
12 factors represent reasonable but challenging hurdles for Wisconsin ILECs.²⁹
13

14 SBC went even further in its comments, citing the unlikelihood of SBC Wisconsin actually
15 realizing productivity gains in the future under the current price cap mechanism.

25. (...continued)
Telecommunications Utility Price Regulation, Regarding the Productivity Offset Factor,
Comments of SBC Wisconsin, WPSC Docket No. 1-AC-193, January 10, 2003, (“*SBC Wisconsin Comments*”) at 25.

26. The Wisconsin PSC selected two firms, Christensen Associates and Economics and Technology, Inc., to prepare separate analyses of the historic and future productivity growth in the Wisconsin telecommunications industry.

27. Christensen Associates, *Productivity Performance of the Wisconsin Local Exchange Carrier Industry*, WPSC Docket No. 1-AC-193, January 10, 2003., at 2.

28. *Id.*, at 2

29. *Id.*, at 3.

1 Net income is dropping and substantially lower than it was seven years ago. As a
2 result, SBC Wisconsin's ability to fund investment and service quality goals is
3 increasingly jeopardized. SBC Wisconsin is a large firm that has exhausted most
4 opportunities for large productivity gains. Like the CPUC [in its decision in
5 Investigation 95-05-047] the [Wisconsin] Commission should temper the
6 productivity factor to fit the current and likely future circumstances of
7 intensifying competition and little opportunity for productivity growth.³⁰
8

9 Importantly, the ILECs' efforts to reduce or eliminate the productivity offset have generally been
10 met with consistent success. For example, in its resulting decision in CPUC Investigation No.
11 95-05-047, the California PUC elected to suspend the use of the price cap formula and to freeze
12 all rates for monopoly services.³¹ The only "incentive" that is operative here is the incentive to
13 persist in attempts to further eviscerate the efficiency-oriented aspects of price cap regulation.
14 Armed with the expectation of success as regulator after regulator accedes to their demands and
15 "updated" studies, the ILECs' efficiency incentives under price cap regulation is not
16 consequentially different than under RORR. If anything "presumptive" is to apply to ILEC
17 efficiency under price caps, it is that the ILECs have no more of an incentive to improve their
18 efficiency today than they did a decade or more ago, before price cap regulation was ever
19 introduced.
20

30. *SBC Wisconsin Comments*, at 22.

31. *Investigation on the Commission's Own Motion Into the Second Triennial Review of the Operations and Safeguards of the Incentive-Based Regulatory Framework for Local Exchange Carriers, Interim Opinion*, CPUC Decision No. 95-12-052, Investigation No. 95-05-047, December 20, 1995.

1 22. Indeed, the past ten years of ILEC history confirm that, if anything, the institution of
2 price cap or other forms of “incentive” regulation (no matter what its “purity”) have worked to
3 reward ILECs far more for their strategic conduct vis-a-vis regulators and competitors than for
4 improvements in the “efficiency” of their operations. The vast disparity in Plant Non-Specific
5 Expenses among Verizon BOC affiliates (as detailed in the Reply Testimony of Menko,
6 McCloskey and Brand), for example, confirms that ILECs retain significant unnecessary
7 inefficiencies. To the extent that the prevailing forms of price cap regulation work to force
8 ILECs to flow-through their efficiency gains to their customers, the incentives to engage in
9 strategic conduct overwhelm and easily supersede any serious “efficiency” objectives.

10
11 **ILEC provision of unregulated services not available as UNEs ensures that, under any**
12 **price cap scheme, the ILEC network’s embedded costs will always exceed the costs of an**
13 **efficient network designed to provide only services available as UNEs.**
14

15 23. Even if ILEC manipulations of price caps did not occur, the most theoretical, “purest,”
16 and most unrealistic form of price cap regulation cannot be “presumed” to have weeded out
17 preexisting ILEC inefficiencies. That would be the case only in a world in which “pure” price
18 cap regulation had applied from the outset, i.e., over the entire period over which the existing
19 ILEC network has been acquired. But that is certainly not the case here. ILEC networks were
20 designed and built-out long before price cap regulation took effect, and all investment decisions
21 made by ILECs since 1991 have been incremental changes to that embedded base. Thus, even if
22 pure price cap regulation had applied in its theoretical “pure” form since 1991, and even if all of
23 the incremental investments that have been made since 1991 have been optimally “efficient” to

1 the extent not constrained by preexisting network architecture and design, that in no sense
2 assures that the network *as it exists today* is optimally efficient.

3
4 24. In fact, there is no basis to conclude or to suggest that the post-1991 ILEC network
5 enhancements were by themselves even optimally efficient with respect to the specific network
6 components that are required to be offered as UNEs. Rather than work to improve their existing
7 infrastructure, ILEC investment decisions (at least in recent years) have been driven by
8 incentives to construct and optimize a broadband network with capabilities that CLECs cannot
9 access.³² To the extent that ILECs are able to jointly use UNE equipment for the provision of
10 broadband services, these common costs provide significant incentive for the ILECs to
11 misallocate costs. There is thus no reason to assume or even to expect that an ILEC's decision
12 with respect to its facilities provided as UNEs would make efficient forward-looking decisions
13 regarding their *legacy* network, which is all that the ILECs are required to unbundle.

14
15 25. The theory underlying the ILECs' claims regarding price cap regulation and efficiency
16 is rooted in the notion that price cap regulation "de-links" the ILEC's rates from its costs. In
17 fact, and as I have discussed at considerable length both here and in my December 16, 2003

32. *In the Matter of Review of the Section 252 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, FCC No. 03-36, 18 FCC Rcd 16978 (2003) ("Triennial Review Order" or "TRO"), 17141, at para. 272.

1 Declaration,³³ rates and costs remain inextricably linked under price caps because the price
2 adjustment mechanism is itself subject to periodic review and modification based upon actual
3 ILEC earnings and productivity performance. However, even if (*arguendo*) price cap regulation
4 actually had permanently de-linked rates and costs, such de-linking would only have been with
5 respect to the ILECs' *aggregate* revenue requirement, and *not* with respect to specific, individual
6 services.

7
8 26. In particular, prices for wholesale services (UNEs) that are provided to CLECs are
9 presumptively cost-based (i.e., set at TELRIC). While TELRIC in theory also de-links UNE
10 prices from embedded ("actual") ILEC costs (in that TELRIC is supposed to reflect "the most
11 efficient technology used most efficiently"), the conversion of investment costs into recurring
12 rates typically involves the application of embedded annual carrying charge factors (e.g.,
13 maintenance, administrative expenses), a process that operates to flow through whatever
14 inefficiencies persist in ILEC service provisioning and operations. Moreover, ILECs frequently
15 attempt to "adjust" model inputs to capture their own specific cost conditions.³⁴ And obviously,
16 the persistent ILEC demand for recovery of "actual costs" in UNE rates would, if allowed,

33. Selwyn (AT&T), at 15-30.

34. For example, an SBC witness recently advocated state and company specific values for cable fill factors for feeder and distribution, structure costs including trenching labor, plant mix values, Service Area Interface (SAI) splicing and labor rates, and Digital Loop Carrier (DLC) contract data. *Application by SBC Communications Inc., Pacific Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in California*, WC Docket 02-306, Reply Affidavit of Thomas J. Makarewicz on Behalf of SBC, filed November 4, 2002, at para. 8.

1 expressly maintain as direct a linkage between UNE prices and ILEC-specific costs as would
2 prevail under traditional rate of return regulation. Moreover, to the extent that certain network
3 assets are used to jointly provide traditional voice-grade services as well as Sec. 706 “advanced”
4 services (e.g., xDSL and other “broadband” offerings), the use of aggregate plant utilization (fill)
5 percentages, carrying charge factors, depreciation rates, and costs of capital may operate to shift
6 costs of such “advanced” and other competitive services over to the noncompetitive UNEs. This
7 would occur whether the aggregate ILEC operations are subject to price cap or to rate of return
8 regulation; to the extent that cost and other operational detail reporting that is required of ILECs
9 operating under price cap regulation is less detailed, less frequent, and less specific relative to
10 what would be expected under rate of return regulation, the potential for such misallocation and
11 cost-shifting is actually *far greater* under price caps than under RORR.

12
13 27. Even if price cap regulation were actually to stimulate BOC efficiency initiatives, the
14 implementation of specific operational improvements necessarily involves prioritization, and
15 (following their receipt of Sec. 271 in-region interLATA services authority) BOCs have a strong
16 incentive to put wholesale services provided to other carriers at the very bottom of the priority
17 list. Indeed, to the extent that wholesale rates are cost-based, the deferral of a productivity
18 improvement enables the BOCs to rely upon the higher costs (arising from the legacy
19 inefficiencies) to justify higher UNE prices. The ILECs' obvious incentive to increase rivals'
20 costs by jacking up UNE rates overwhelms and supersedes whatever nominal “efficiency
21 incentives” they might in theory acquire as a result of “pure price cap” regulation (which, of
22 course, does not exist in any event).

1 28. The obvious means for increasing CLEC costs is to deliberately resist introducing
2 efficiencies and best practices into the provision of UNEs and other wholesale services. For
3 example, far from relying on BOC “best practice” incentive, the Commission noted the incentive
4 for BOCs to “backslide” with respect to its obligations to CLECs after receiving Section 271
5 authority, and indicated its willingness to impose sanction on a BOC that succumbed to these
6 incentives.³⁵ The Commission recently specifically recognized one of these artificial barriers,
7 ILEC provision of “hot cuts,” in its *Triennial Review Order*. The Commission recognized that
8 ILEC “inability to handle a sufficient volume of hot cuts” created hurdles CLECs had to
9 overcome in order to serve mass market customers.³⁶ The presence of price cap regulation
10 cannot alter the inescapable fact that today, some eight years after the 1996 *Act* became law, the
11 Commission and state regulators are still being forced to deal with such *inefficiencies* as “hot
12 cuts,” installation and repair intervals.

13
14 29. Contrast that with the rapid and (by comparison) enormously more efficient processes
15 that the BOCs developed in the 1980s to implement equal access and PIC changes at a time when
16 they were both indifferent as to the customer's choice of carrier and saw switched access as a
17 particularly lucrative source of revenue. Moreover, as AT&T has argued in the *Special Access*

35. *Application by Bell Atlantic New York for Authorization Under Section 271 to Provide Inregion InterLATA Service in the State of New York*, CC Docket No. 99-295, *Memorandum Opinion and Order*, FCC 99-404, 15 FCC Rcd 3953(1999), 4176, at para. 451.

36. *TRO*, at para. 422, see also fn. 1435.

1 *petition*³⁷ (and as addressed in my January 23, 2002 Declaration in that proceeding³⁸), special
2 access prices are set so far in excess of costs that whatever "efficiencies" the BOCs might have
3 introduced into the provision of special access services are in no event being flowed through to
4 IXC's and other buyers of special access services.

5
6 **Setting UNE prices based upon embedded or "reproduction" costs of the embedded**
7 **network effectively restores rate of return regulation to the pricing of UNEs, and in so**
8 **doing actually reverses whatever ILEC efficiency incentives might otherwise be ascribed to**
9 **price cap regulation.**
10

11 30. Actions by regulators to set UNE prices equal to embedded costs or to the theoretical
12 costs of "reproducing" the embedded network, as advocated by several ILEC witnesses, would
13 actually undermine the very price cap incentives these witnesses rely upon as proof of BOC
14 efficiency. UNE prices are generally not subject to price caps. In order to set UNE rates on the
15 basis of embedded costs, regulatory mechanisms would have to be devised (or resurrected from
16 the days of rate of return regulation) so as to assure that the common and joint costs that
17 dominate BOC networks are properly allocated to each specific UNE. Incredibly, while
18 admonishing the Commission to proceed in this direction in the instant proceeding, *the very same*
19 *RBOCs are telling an entirely opposite story to the United States Court of Appeals for the*

37. *In the Matter of AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM No. 10593, Petition For Rulemaking, October 15, 2002.

38. *In the Matter of AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services*, RM No. 10593, Reply Declaration of Lee L. Selwyn, January 23, 2002.

1 *District of Columbia Circuit*. In an effort to downplay the significance of the huge double-digit
2 returns that the BOCs are realizing from their flexibly priced special access services – a condition
3 that demonstrates that these services are being priced not *at*, but grossly *in excess of*, embedded
4 cost, the RBOCs admonish the Court that:

5
6 ... category-specific data from the FCC’s Automated Reporting Management
7 Information System (“ARMIS”) ... contain arbitrary allocations that are
8 “economically irrational.” The FCC long ago concluded that the category-
9 specific data reported in ARMIS “does not serve a ratemaking purpose.” The
10 FCC has referred to the cost-allocation rules as “outdated regulatory mechanisms
11 that are out of step with today’s rapidly-evolving telecommunications
12 marketplace” and has indicated that reducing “regulatory reliance on earnings
13 calculations based on accounting data is essential to the transition to a competitive
14 marketplace.” Indeed, the FCC has not imposed rate-of-return regulation for
15 years, and the formal cost-allocation scheme has become obsolete.³⁹
16

17 Just how “actual” can embedded costs be if the process for establishing them is “economically
18 irrational” and “does not serve a ratemaking purpose?”
19

20 31. Moreover, setting UNE prices on the basis of embedded or “reproduction” costs would
21 vitiate even those limited efficiency incentives that might be present under price cap regulation.
22 If CLECs are able to attract ILEC customers via UNEs leased from ILECs at embedded cost
23 prices, the result will be to remove successively larger fractions of the total ILEC service base
24 from price caps as the ILECs’ price cap-regulated retail services are migrated to *non-price cap*-

39. BOC Mandamus Response, at 13, footnotes omitted.

1 *regulated UNEs*. As such, an increasingly larger percentage of ILEC revenue would come from
2 the provision of services (UNEs) that will not be subject to price caps. If UNE prices are to be
3 set at embedded cost without any specific rate adjustment or rate review process, ILEC will
4 acquire the same types of “gold plating” and inefficiency incentives that prevailed under RORR
5 – with the added benefit that by assuring that these embedded cost-priced services are provided
6 inefficiently, they will disadvantage rival carriers and in so doing retain and extend their
7 monopoly hold on the retail local service market.

8
9 **Econometric regression analyses submitted by several RBOC declarants confirm the**
10 **existence of a strong statistically significant relationships between TELRIC UNE costs and**
11 **ILEC “actual” costs, and demonstrate that TELRIC principles are being consistently**
12 **applied by state commissions.**
13

14 32. The Supreme Court’s finding in *Verizon v. FCC* that TELRIC rates are not
15 confiscatory⁴⁰ has led ILEC witnesses to look to creative, back-door devices for setting UNE
16 rates at embedded costs. One such attempt can be found in the Declaration of Drs. Aron and
17 Rogerson, submitted on behalf of SBC. There, Aron and Rogerson attempt to discredit TELRIC-
18 based UNE prices by comparing “UNE-P prices to UNE-P costs” across states, hypothesizing
19 that “there should be a systematic relationship between actual costs and forward-looking costs,
20 and we would not expect it to vary wildly across states.”⁴¹ A similar claim is advanced by USTA
21 declarants Eisenach and Mrozek, who compare state UNE prices with state-specific costs as

40. *Verizon Communication Inc. v. FCC*, 535 U.S. 467 (2002).

41. Aron/Rogerson (SBC), at 36.

1 developed by the FCC's Synthesis Model (also known as the Hybrid Cost Proxy Model, HPCM).
2 Aron and Rogerson find that UNE prices vary substantially in ways that, they contend, "are
3 unexplained by []cost proxies," and on that basis conclude that TELRIC methods are being
4 incorrectly applied by state commissions and "that state commissions exercise their discretion in
5 ways that are random with respect to costs."⁴² As Aron and Rogerson see it, such "state
6 commission discretion" undermines the validity of TELRIC.

7
8 33. The "costs" that Aron and Rogerson purport to compare with UNE-P prices are, of
9 course, *not* the TELRIC costs that had been examined by the state PUCs and used as the basis for
10 the adopted UNE prices. Instead, Aron and Rogerson posit three different "cost proxies," and
11 "hypothesize that, if the UNE prices applied by state commissions are applied consistently across
12 states and properly reflect the carriers' costs of providing UNEs [as reflected in the selected 'cost
13 proxies'], then the OLS [ordinary least squares regression] model should 'fit' the data closely;
14 that is, the model's adjusted R-squared value should be close to one."⁴³ This specification of the
15 "hypothesis" to be tested is so extreme as to constitute nothing more than a "straw man" theory
16 whose rejection is hardly surprising and is certainly of no import whatsoever. Indeed, if these
17 three variables should explain perfectly UNE prices, then states shouldn't bother with cost
18 modeling and instead should use Aron and Rogerson's three variable regression equation to set
19 prices.

42. *Id.*

43. *Id.*, at 35.

1 34. An R-squared value of “close to one” would imply that the Aron-Rogerson model
2 “explains” or “accounts for” *close to one hundred percent* of the variation in the dependent
3 variable, the UNE-P price in this instance. It is entirely possible that there are identifiable and
4 statistically significant relationships between the UNE-P price and each of the three “cost proxy”
5 explanatory variables being tested by these declarants – i.e., Unit Embedded Cost as derived
6 from ARMIS reports, unit costs as developed by the FCC’s Synthesis Model, and average Line
7 Density within the BOC’s service area in each jurisdiction. However, there is no intuitive basis
8 whatsoever to expect that these factors – separately or in combination – could possibly “explain”
9 or “account for” anything even remotely close to 100% of the variation in the price of UNE-P.

10
11 35. The utter absurdity of the Aron-Rogerson “R-squared equals one” hypothesis can be
12 graphically demonstrated by one of their models in particular – the single-variable model based
13 upon Line Density – although the same point applies with equal force to all three. There is no
14 question that Line Density is an important cost driver for subscriber outside plant loops. Longer
15 average loop lengths and smaller cable sizes typical of low density areas are an important factor
16 in making loop costs in low density areas higher than in more densely populated parts of the
17 ILEC’s service territory. However, Line Density is only one of many factors that influence loop
18 cost. Others include terrain, local construction requirements (e.g., overhead or underground),
19 labor rates, relative mix of feeder and distribution cable, use of fiber optics in distribution and
20 feeder plant, and many others. *There is simply no intuitive basis to expect that Line Density by*
21 *itself should account for fully or even nearly 100% of the variation in UNE-P prices from state to*
22 *state.* In fact – yet referenced by Aron and Rogerson only in one perfunctory footnote – what the

1 Line Density model shows is a very strong and statistically significant relationship – at the
2 99.98% confidence level – between UNE-P price and Line Density.⁴⁴ Rather than concede that
3 their model has actually proven precisely what they had set out to *disprove*, Aron and Rogerson
4 simply ignore this result altogether.

5
6 36. The other two single-variable models – ARMIS/Historical costs, and Synthesis Model –
7 produced the very same type of result. As with Line Density, there is every reason to expect
8 *some* relationship between each of these variables and the price of UNE-P, but *there is no basis*
9 *whatsoever to expect that these variables could, individually or in combination, explain 100% or*
10 *anything close to 100% of the variation in UNE-P prices.* However, having posited their
11 impossible-to-satisfy straw man hypothesis, Aron and Rogerson once again conclude that no
12 such relationships are present. In actuality, both models identify a high degree of statistical
13 significance to both variables. In the ARMIS/Historical Cost model, the coefficient is estimated
14 at 0.558 with a Standard Error of 0.144, indicating a *t*-statistic of 3.88, i.e., the 99.999%
15 confidence level. In their Synthesis Model regression, the coefficient of the explanatory variable
16 was estimated at 0.565 with a Standard Error of 0.151, indicating a *t*-statistic of 3.74, i.e., the
17 99.999% confidence level. Of course, as with the Line Density model, these regressions prove
18 *exactly the opposite* of what Aron and Rogerson had set out to show. Rather than concede that
19 outcome, they simply ignore it.

44. The Aron/Rogerson Line Density model estimates the Line Density coefficient at –3.733 with a Standard Error of 0.684, indicating a *t*-statistic of 5.46. At 48 degrees of freedom (the number of observations in the Aron/Rogerson data set), that corresponds to the 99.999% confidence level.

1 37. Economists use regression techniques to identify and quantify relationships among
2 different variables. In performing such analyses, economists will posit (hypothesize) a
3 relationship to be tested and, on the basis of the results obtained, either accept or reject the
4 hypothesized relationship using standard and widely accepted statistical tests. The hypotheses to
5 be tested using econometric regression models are ordinarily framed in terms of one or more
6 specific explanatory variables (e.g., “the price of UNE-P (the dependent variable) is related to
7 Line Density (the independent variable)”), not in terms of the extent to which the model
8 “accounts for” variation in the *dependent* variable. As happened with all of the regressions
9 presented by Aron and Rogerson, a strong and statistically significant relationship was identified
10 between the dependent variable and each of the independent variables tested despite the fact that
11 in each case the explanatory variable accounted for only a fraction of the variation in the price of
12 UNE-P. Unless there is some intuitive basis to *expect* that the hypothesized relationship should
13 account for 100% or nearly 100% of the variation in the dependent variable, there would be no
14 reason to expect an R-squared close to one, nor would there be a basis to reject the model merely
15 because the R-squared was not particularly close to one.

16
17 38. A recent paper by longtime BOC consultant Prof. Jerry A. Hausman of MIT described
18 regression results with particularly low R-squared values – in the range of .01 to .05. In an effort
19 to rationalize the validity of these regression models despite their low R-squared values,
20 Hausman *et al* explain that:

21
22 To test whether an individual coefficient is statistically significantly different
23 from zero, one calculates the ratio of the estimated coefficient to its standard error,

1 and then compares this ratio against a threshold value. For example, in large
2 samples, an estimated coefficient is said to be significantly different from zero at a
3 5% significance level if the absolute value of the ratio equals or exceeds 1.96.⁴⁵
4

5 Applying Hausman's prescription to the Aron-Rogerson models, the ratios of the estimated
6 coefficients to their respective standard errors – the so-called *t*-statistic – actually confirm their
7 statistical significance at the 99% level.
8

9 39. Aron and Rogerson state categorically that the results of their models reject their
10 hypothesis.⁴⁶ However, by any generally accepted standard of econometric analysis (such as that
11 applied by Hausman *et al.* in the above-referenced paper), the individual (and implicitly)
12 hypothesized relationships between UNE-P prices and each of the three explanatory variables
13 must be accepted as *highly statistically significant*. Put simply, the Aron and Rogerson model
14 *affirmatively proves precisely the opposite of what these declarants were attempting to*
15 *demonstrate*.
16

17 40. The R-Squared value in any model is a calculation of the percentage of the variation in
18 the dependent variable that is explained by the variation in the independent variables. An R-
19 squared value of one would indicate that the model takes into account *every possible source of*
20 *variation in the dependent variable*. This is an *impossible* standard, and is one that is rarely if

45. Hausman, Jerry A. Gregory K. Leonard and J. Gregory Sidak, "Does Bell Company Entry into Long Distance Benefit Consumers," 70 *Antitrust Law Journal* 463, 472, fn 32.

46. Aron/Rogerson, at 36.

1 ever achieved – or even expected – in practice. Even models containing dozens or hundreds of
2 explanatory variables are not expected to – and do not – satisfy this hurdle. In the instant case,
3 Aron and Rogerson have presented four models, three of which have only *one* explanatory
4 variable, and the fourth of which has three. Moreover, the Aron-Rogerson model is a cross-
5 sectional analysis in which all of the sample data is as of a specific, single point in time. It is
6 generally acknowledged in the economics profession that cross-sectional models, by their nature,
7 will generate lower R-squared values than time-series models.⁴⁷ Perhaps most importantly, it is
8 essential to recognize that R-squared values are judged rather subjectively, and that *there is no*
9 *general consensus about what an acceptable R-squared value should be.*⁴⁸ Aron and Rogerson
10 have advanced a hypothesis *requiring* that R-squared should be close to one, despite the fact that
11 their model specifications consist of only one or a handful of explanatory variables involving
12 only cross-sectional data. Even so, regardless of the actual R-squared values and their
13 relationship to any expectations, there is no econometric basis for dismissing a model as having
14 no significance because of any particular R-squared value, and Aron-Rogerson’s rejection of
15 their “straw man” hypothesis on the basis of the purportedly low R-squared is both incorrect and,
16 quite frankly, academically dishonest. As Cramer (1987) explained:

17
18 In general, econometricians are interested in obtaining ‘good’ parameter estimates
19 where ‘good’ is not defined in terms of R-Squared. Consequently the measure R-
20 Squared is not of much importance in econometrics. Unfortunately, however,

47. Peter Kennedy, *A Guide to Econometrics*, 4/e, MIT Press, 1998 (“*Kennedy*”), at 26.

48. *Id.*

1 many practitioners act as though it is important, for reasons that are not entirely
2 clear.⁴⁹

3
4 41. Because their regression models produced *precisely the opposite of what they were*
5 *attempting to prove*, Aron and Rogerson simply *ignored* the high degree of confidence that each
6 of their three single-variable models established with respect to each of the three explanatory
7 variables being tested, and instead focused entirely upon the essentially meaningless R-squared
8 values. While the declarants do identify (with an asterisk) those coefficients that are statistically
9 significant, they omit any mention or acknowledgment of this critically important result, and
10 instead point out only that their “straw man” has indeed been knocked down.⁵⁰

49. J. S. Cramer (1987) *Mean and Variance of R² in Small and Moderate Samples*. Journal of Econometrics 35, pp 253-66. See also, *Kennedy*, at 26-27 : “Because the R-Squared and OLS criteria are formally identical, objections to the latter apply to the former. The most frequently voiced of these is that searching for a good fit is likely to generate parameter estimates tailored to the particular sample at hand rather than to the underlying 'real world.' Further, a high R-Squared is not necessary for "good" estimates; R² could be low because of a high variance of the disturbance terms, and our estimate of beta-hat could be "good" on other criteria...”

50. Even the perfunctory notation that the asterisk-identified coefficients are “significant at the 5% level” [Aron/Rogerson (SBC), Table 1, at 37] is highly misleading. Econometricians more commonly express statistical confidence in terms of the probability that the estimated value is statistically significant (e.g., at the 95% confidence limit). Instead, Aron and Rogerson have reported the inverse confidence level – the probability that the results are *not* statistically significant – using 5% in this instance. As I have noted, several coefficients are *even more significant* than the identified 95% confidence level. *All three of the single-variable model coefficients are significant at the 99.98% level* (assuming a two tailed, 48-df test). This extremely high level of significance cannot be so lightly dismissed, and confirms that each individual variable has an undeniably strong explanatory power, the low R-squared notwithstanding.

42. The results of the three variable model are also compelling. Again, the model results shows that two of the three variables are significant at the 95% level and, in fact, the line density variable is significant at the 99% level. It is, however, particularly noteworthy that in the three-variable model the FCC's Synthesis Model variable is *not significant* when run in combination with the other two variables.⁵¹

43. Like Aron and Rogerson, Eisenach and Mrozek, on behalf of USTA, attempt to examine "the extent to which states have implemented the TELRIC rules in a consistent fashion"⁵² by testing the relationship between statewide average UNE-P rates and unit costs as determined by the FCC's Synthesis Model (HCPM). And like Aron and Rogerson, Eisenach and Mrozek ignore the *extremely high* *t*-statistic values (reflecting confidence levels in excess of 99.99%) for

51. Although it is not possible to know for certain, given the limited discussion and absence of regression statistics that are customarily included with regression model results, it seems likely that the three-variable model suffers from an econometric problem known as multicollinearity. Multicollinearity arises when some or all of the explanatory variables are correlated with each other. Checks for econometric issues such as multicollinearity or heteroskedasticity are customarily performed by regression software and are often reported along with the results of the model, although that was not the case here. Comparing the *t*-statistic for the FCC Synthesis Model variable in both models (which is calculated by dividing the estimated coefficient by the standard error), we see that the value drops from 3.742 (99.999% confidence level) in the single-variable model to 0.483 in the multiple-variable model, which indicates a lack of statistical significance. This dramatic shift in significance (in light of the relatively small changes to the ARMIS and Line Density variables) is consistent with multicollinearity.

52. "Do UNE Rates Reflect Underlying Costs?" filed as Attachment A to the Comments of USTA, December 16, 2003 ("*Eisenach and Mrozek (USTA)*"), at 3.

1 all eight of their regression models,⁵³ and instead focus upon the R-squared, noting that “only
2 about one half of the variation in UNE rates can be explained by underlying costs.”⁵⁴
3 Interestingly, whereas Aron and Rogerson compute an Adjusted R-squared of 0.218 for their
4 Synthesis Model regression, the Eisenach-Mrozek models “show R-squared values of 0.53, 0.48,
5 0.52 and 0.52” for their UNE-loop regressions and “0.55, 0.44, 0.54 and 0.53” for their UNE-P
6 models.⁵⁵

7
8 44. Their conclusion that “about one half of UNE-P [and UNE-L] rate variation is due to
9 factors other than cost” is hardly remarkable in light of the fact that their model regresses UNE
10 prices against a cost benchmark (HCPM) that was, for the most part, *never actually used or*
11 *intended to be used to set UNE rates*. Indeed, as the Commission noted in the instant NPRM:

12
13 In developing the model and inputs necessary to calculate universal service
14 funding, the Commission did not intend to provide any systematic guidance to
15 states in the area of TELRIC rate-setting. Indeed, the Commission emphasized at
16 the time that its decisions on particular inputs were made solely for the purpose of
17 calculating universal service support and may not be appropriate for the
18 calculation of UNE prices. For these reasons, we continue to discourage states
19 from using the nationwide inputs for the purpose of developing UNE prices.
20

21 In the absence of more specific guidance from the Commission, however, some
22 state regulators have utilized our *USF Inputs Order* to reach conclusions
23 regarding the TELRIC-based cost of building a network. Although we understand
24 why state regulators might refer to the *USF Inputs Order* in developing forward-

53. *Id.*, at 24-27.

54. *Id.*, at 16.

55. *Id.*, at 16-17.

1 looking costs, in at least some cases there might be unintended and undesirable
2 consequences that result from extrapolating from statements made in the context
3 of universal service funding. For example, the Commission stated in the *USF*
4 *Inputs Order* that it is necessary “to assume that the telephone industry will have
5 at least the same opportunity to share the cost of building plant that existed when
6 the plant was first built.” This statement was intended to address only the issue of
7 structure sharing in the universal service model, but it has been interpreted by
8 some states as endorsing a backward-looking approach for other inputs in a
9 TELRIC model, such as the relative frequency of various construction types (e.g.,
10 boring through concrete, trenching through dirt). Applying this particular
11 statement from the *USF Inputs Order* out of context erroneously assumes away
12 not just the features of an incumbent LEC’s existing network but also attributes of
13 the real world in which incumbents and competitors operate.⁵⁶
14

15 Given these facts, it would have been rather remarkable if the “fit” had been any better. Among
16 other things, the declarants used *BOC* UNE rates as their dependent variables yet used *statewide*
17 *average HCPM costs* (which included costs for non-Bell ILECs) as their explanatory variables.
18 They also ignored the fact that the HCPM used *nationwide* expense factor dollar values, whereas
19 the TELRIC studies that had been used by the individual state commissions properly used ILEC-
20 and state-specific expense factors in setting jurisdictional UNE rates. Eisenach and Mrozek
21 attempt to rationalize the use of the Synthesis Model as a cost benchmark because “the Synthesis
22 Model is applied consistently across states” and so “the underlying cost estimates that emerge
23 from the model are – unlike the TELRIC rates set by state PUCs – unaffected by regulatory
24 discretion.”⁵⁷ In essence, having “proven” that “costs” account for only about one half of the

56. *Notice of Proposed Rulemaking*, FCC 03-224, rel. September 15, 2003, (“*TELRIC NPRM*”), at paras. 46-47 (footnotes omitted).

57. Eisenach and Mrozek (USTA), at 6.

1 variation in UNE prices, Eisenach and Mrozek then proceed to ascribe all of the “unexplained”
2 variation in UNE prices to “regulatory discretion.”
3

4 45. “Regulatory discretion” would seem to be a particularly extreme pejorative
5 characterization of what state regulators do in setting UNE prices – and is particularly
6 undeserved inasmuch as Eisenach and Mrozek make no attempt whatsoever to examine other
7 possible bases for the “deviations” from the HCPM results. The HCPM’s use of nationwide
8 expense factors and its development of industry-wide statewide average costs would certainly
9 “explain” a good deal of the “deviations” – and these “deviations” are unambiguously
10 attributable to limitations of the HCPM rather than to “regulatory discretion” on the part of state
11 PUCs. In fact, the only situation in which the “deviation” between HCPM costs and UNE prices
12 could be ascribed to “regulatory discretion” would be where the BOC, in proposing UNE rates,
13 had relied upon HCPM results that were then modified or rejected by the state PUC. *To the best*
14 *of my knowledge, no BOC has ever relied upon the HCPM as the basis for proposed UNE prices,*
15 Indeed, the Commission has discouraged such reliance.
16

17 46. In short, all that Eisenach and Mrozek have done here is to confirm a strong relationship
18 between HCPM costs and UNE prices at the 99.99+% confidence level, a result that is entirely
19 consistent with their recognition that “the Synthesis Model is designed to estimate going-forward
20 costs for individual UNE elements, and is thus *conceptually consistent with the TELRIC*

1 *approach.*”⁵⁸ No one has ever suggested that the HCPM as adopted for universal service funding
2 purposes is capable of developing ILEC- and jurisdiction-specific UNE prices, so “proving” that
3 the HCPM does not do that is hardly a surprise, and certainly affords no insight whatsoever as to
4 whether “state pricing decisions [are] inconsistent with the forward-looking cost principles on
5 which [the FCC’s] rules are based.”

6
7 **Contrary to how they are being portrayed, the econometric models introduced by the**
8 **RBOC declarants affirmatively support the use of TELRIC as a basis for UNE pricing.**
9

10 47. There is no particular reason for there to be a consistent relationship between UNE
11 prices and so-called “actual” embedded cost or the “replacement cost” of the existing ILEC
12 network. ILEC network configurations and architectures reflect legacy conditions that long pre-
13 date the *1996 Act* or the requirement that ILECs make UNEs available to rival carriers. Large
14 portions of ILEC networks were constructed decades ago, and as such network design and
15 operational inefficiencies that arose under monopoly rate of return regulation are still embedded
16 in ILEC network costs. And more recent, post-*Act* network construction has been heavily
17 influenced by ILEC efforts to acquire the capability to enter new, unregulated markets, such as
18 broadband, and to compete with or adopt new technologies, such as wireless and VoIP. Even if
19 “efficient,” these more recent capital investments may have little direct relationship with the
20 unbundled network elements that ILECs are and will continue to be required to provide. There is
21 thus no basis to expect that either historic embedded costs or reproduction costs of the ILEC

58. *Id.*, emphasis supplied.

1 network will accurately and fairly capture the forward-looking costs of UNE-loops and of
2 UNE-P.

3
4 48. Embedded costs are heavily influenced by two factors whose specific effects tend to be
5 opposite to one another. Where a state has experienced relatively high rates of plant additions,
6 the purchase prices of such recently-acquired plant will be closer to the investment levels
7 applicable to TELRIC analyses. However, for low-growth states with relatively older plant,
8 depreciation reserves will tend to be relatively greater, making the net investment level that much
9 smaller. The interaction of these two opposing conditions will obviously have a major impact
10 upon the relationship between what Dr. Aron refers to as “actual” costs and UNE prices.

11
12 49. TELRIC pricing, in contrast, will not vary as a result of the mix of vintages of
13 embedded ILEC plant. Aron/Rogerson’s “discovery” of the lack of a “perfect fit” between
14 “actual” costs and TELRIC-based UNE prices, far from being evidence of regulatory bias in
15 ratemaking, is more likely a result of failing to account for uneven ILEC investment patterns.

16
17 50. Moreover, analyses based upon the ILECs’ embedded costs are necessarily inflated by
18 capital expenditures for plant additions unrelated to the provision of UNEs. ILECs have been
19 engaging in network deployment related to expansion of broadband and other advanced facilities,
20 including increased fiber deployment in feeder and distribution plant. ARMIS data indicates that

1 between 1997 and 2001, BOC in-region total plant in service increased an average of 26%,⁵⁹ an
2 amount that far exceeds any plant retirement or additional volume-sensitive costs that the BOCs
3 might confront on their legacy networks.

4
5 51. In addition, incumbent carriers have requested in many states that rates *not* be set
6 exactly at TELRIC levels specific to a particular jurisdiction. For example, as the FCC notes,
7 “Verizon’s Massachusetts II Application relies on voluntarily-adopted rates that are equivalent to
8 those currently in place in New York.”⁶⁰ Following protracted litigation and dispute over a
9 variety of costing issues, the California PUC in May of 2002 ordered the adoption of SBC’s

59. Figure is the average increase in Total Plant in Service account balances, as reported in ARMIS Report 43-03, for all ILECs, from 1997-2002

60. *In the Matter of Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) And Verizon Global Networks Inc., For Authorization to Provide In-Region, InterLATA Services in Massachusetts*, CC Docket No. 01-9, *Memorandum Opinion and Order*, FCC 01-130, 16 FCC Rcd 8988 (2001), 9000, at para. 21.

1 *Illinois* UNE rates as interim UNE rates for California.⁶¹ Likewise, Delaware and Virginia
2 adopted New York rates.⁶²

3
4 52. As previously noted (at para. 14 *supra*), the RBOCs *concede* that “a significant portion
5 of the [interstate costs of DSL services and interstate packet-switching services are being]
6 assign[ed] to other elements.” Virtually *all* of the investment in DSL and packet-switching has
7 taken place *since the onset of price cap regulation*. Indeed, it is highly likely that the bulk of the
8 26% jump in RBOC gross plant in service that occurred during the 1997-2001 period was driven

61. *Joint Application of AT&T Communications of California, Inc. and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Switching in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050. Application of AT&T Communications of California, Inc. and WorldCom, Inc. for the Commission to Reexamine the Recurring Costs and Prices of Unbundled Loops in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050. Application of The Telephone Connection Local Services, LLC for the Commission to Reexamine the Recurring Costs and Prices of the DS-3 Entrance Facility Without Equipment in Its First Annual Review of Unbundled Network Element Costs Pursuant to Ordering Paragraph 11 of D.99-11-050.* California Public Utilities Commission Decision 02-05-042, 2002 Cal. PUC LEXIS 286, May 16, 2002.

62. *In the Matter of Application by Verizon Virginia Inc., Verizon Long Distance Virginis, Inc., Verizon Enterprise Solutions Virginis Inc., Verizon Global Networks Inc., and Verizon Select Services of Virginia Inc., for authorization to Provide In-Region, InterLATA Services in Virginia*, WC Docket No. 02-214, *Memorandum Opinion and Order*, FCC 02-297, 17 FCC Rcd 21880, 21921-21922 (2002), at paras. 72-73 (some New York rates were adjusted for cost differences between New York and Virginia); *In the Matter of Application by Verizon New England Inc., Verizon Delaware Inc., Bell Atlantic Communications, In. (d/b/a. Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region, interLATA Services in New Hampshire and Delaware*, WC Docket No. 02-157, *Memorandum Opinion and Order*, FCC 02-262, 17 FCC Rcd 18660, 18664-18665 (2002), at para. 7.

1 by DSL, packet switching, broadband, and other advanced and potentially competitive services –
2 a point not even mentioned by the various RBOC declarants. The presence of potentially
3 substantial DSL, packet switching, broadband, and other advanced services costs in the “actual”
4 or “reproduction cost” of the existing network is *by itself* a fully sufficient basis to discredit and
5 disqualify the use of “actual cost” or “reproduction cost” as a basis for setting or evaluating UNE
6 prices since, *by definition and by the FCCs TRO Order, none of these services are required to be*
7 *provided as UNEs*. Although far from being the only source, the presence of DSL, packet
8 switching, broadband and other advanced services costs in RBOC networks certainly accounts
9 for a good deal of the lack of a “perfect fit” of the Aron-Rogerson and Eisenach-Mrozel
10 regressions, yet this readily-conceded *fact* was never even considered, let alone discussed, in
11 these declarants’ statements.

12
13 **If ILECs actually considered wireless and other intermodal alternatives to wireline services**
14 **to be serious competitive threats, they would be *encouraging* CLECs to utilize ILEC**
15 **networks rather than affirmatively seeking regulatory approval to exclude CLECs from**
16 **accessing ILEC network elements.**
17

18 53. Kahn/Tardiff claim that ILEC intermodal competition (notably that from wireless
19 service providers) has forced ILECs to become more efficient, especially with respect to their
20 network operations. Verizon’s witnesses argue that this intermodal competition provides a
21 sufficient check on ILEC pricing that market incentives exist both for ILECs to set economically

1 efficient retail and wholesale prices without regulatory intervention.⁶³ Likening the current
2 telecommunications industry to the transportation industry, Kahn/Tardiff explain:

3
4 For example, when AMTRAK determines the routes on which it offers service,
5 the prices at which it will offer service, and numerous other decisions, it clearly
6 must account for the fact that passengers can also travel by car or plane. Thus, the
7 price at which it can offer service from Washington DC to New York is
8 constrained by the prices for airline shuttle service between the two cities.
9 Similarly, the price for wireline DSL services is constrained by the availability of
10 cable modem service and the price for wireline telephone service is constrained by
11 the rate for wireless service.⁶⁴
12

13 On short-distance trips such as between Washington and New York, air and rail travel are
14 economic substitutes and frequently offer passengers approximately the same door-to-door travel
15 times. That said, it is worth noting that air fares between Washington and New York are still
16 almost double the comparable Amtrak fare. In analogizing this transportation market to
17 telecommunications, Kahn and Tardiff conveniently ignore the fact that wireless and wireline
18 services are far more complementary to one another than they are substitutes for one another.
19

20 54. This possible migration of customers off the ILEC networks altogether, Kahn/Tardiff
21 contend, provides ILECs with incentives to provide UNEs to competitors at “rational” costs to
22 avoid losing all revenue associated with that customer. Kahn/Tardiff, however, seriously
23 overestimate the effects of wireless and other forms of intermodal competition, which provides
24 little or no real constraint on ILEC pricing or upon an ILECs UNE policy.

63. Kahn/Tardiff (Verizon), at para. 13.

64. *Id.*, at para. 9.

1 55. In fact, ILECs continue to *raise* retail rates for wireline services (especially for
2 customers not purchasing a “bundle” of local and long distance services), even in economic areas
3 with significant wireless penetration. For example, Florida wireless penetration rates are
4 significantly above the national average, yet recent legislation in Florida allows ILECs to raise
5 local rates by up to 20% annually without approval of or review by the Florida Public Service
6 Commission.⁶⁵

7
8 56. ILEC rhetoric aside, the conduct of ILECs provides no reason for the Commission to
9 believe that ILECs face incentives to provide wholesale services to competitors. Quite the
10 contrary: If ILECs were truly concerned about losses to intermodal competition, they would be
11 aggressively and affirmatively seeking out additional retail distribution channels for their
12 traditional switched wireline services, certainly not attempt to shut them down. Indeed, in most
13 industries, manufacturers expend enormous effort at developing and nurturing their retail
14 distribution relationships. If serious and competitively consequential intermodal alternatives
15 existed for ILEC wireline services, ILECs would want to *encourage* CLECs to use the ILEC
16 networks and thus retain CLEC customers and generate revenue for their networks. ILECs
17 would certainly not be engaged in seemingly endless regulatory litigation at both the federal and
18 state levels characterizing UNE-P competition as “artificial” and attempting to eliminate
19 competitor access to their networks altogether. This ILEC conduct is not consistent with the
20 anecdotal evidence of the extremely limited substitution of intermodal alternatives to wireline

65. Fla. Stat. Sec. 364.051 (2003)

services to which Kahn and Tardiff refer, and certainly provide no basis to assume that such “competition” will either constrain UNE prices or work to assure UNE availability to CLECs.

ILECs are not required to, and do not, make specific investments in order to provide UNEs to CLECs, and as such incur no UNE-specific risks.

57. In the *TRO*, the Commission clarified “that a TELRIC-based cost of capital should reflect the risks of a competitive market.”⁶⁶ However, and as I discussed at some length in my December 16, 2003 Declaration, the *TRO* also limited the ILECs’ obligation to provide UNEs at TELRIC-based prices to solely those instances in which a CLEC’s ability to compete would be “impaired” were the UNE not available. Such impairment arises when alternatives to the ILEC-provided UNE, including self-supply by the CLEC itself, are either not available at all or are uneconomic or impractical for the CLEC to obtain in any other manner. But in the *TRO*, the Commission also noted that:

... In the *Local Competition Order*, the Commission stated that different UNEs may have different costs of capital. We now clarify that the use of UNE-specific costs of capital is an acceptable method of reflecting in UNE prices any risk associated with new facilities that employ new technology and offer new services. A carrier in a TELRIC proceeding could, for example, attempt to demonstrate that the cost of capital associated with new services that might be provided over mixed copper/fiber loops is higher than the cost of capital used for voice services provided over other UNEs. We think this approach responds to the incumbent LECs’ concern that our rules provide no opportunity for them to recover the cost

66. *TRO*, at para. 680.

1 of investing in facilities to provide services that are more advanced than those
2 modeled under TELRIC.⁶⁷
3

4 Different UNEs – and, for that matter, different types of investments – confront the ILECs with
5 different types and levels of risk, in part because they also confront different levels of
6 competition. This critically important point has been entirely ignored by the ILECs and their
7 economists.
8

9 58. Investment in the types of “new services that might be provided over mixed copper/fiber
10 loops” is likely more risky than investment in conventional, copper-based services; if so, such
11 investments would potentially demand a higher, risk-adjusted cost of capital. On the other hand,
12 the *TRO* does not require ILECs to make the facilities acquired for purposes of offering such
13 “new services” available as UNEs to CLECs, so there is no justification for shifting those
14 additional risks onto UNE-L, UNE-P and other “conventional” network elements. Indeed, and as
15 I noted in my December 16, 2003 Declaration, doing so would amount to a cross-subsidization of
16 those new services by CLECs and also by consumers of retail “POTS” services.
17

18 59. Indeed, ILECs are not even required to make investments in their networks specifically
19 to provide UNEs.⁶⁸ And Verizon, for example, has specifically advised CLECs that it will not

67. *Id.*, at para. 183, footnotes omitted.

68. *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, *Third Report and Order and Fourth Further Notice of Proposed Rulemaking*, FCC 99-238, 15 FCC Rcd 3696, 3843 (1999). The FCC

(continued...)

1 invest in additional facilities to provide a UNE if facilities are otherwise not available to meet a
2 CLEC's request. On July 24, 2001, Verizon issued a notice to CLECs addressing this specific
3 matter, a copy of which is included in Attachment 1 hereto. According to this notice,

4
5 ... Verizon will provide unbundled DS1 and DS3 facilities (loops or IOFs) to
6 requesting CLECs when existing facilities are currently available. Conversely,
7 Verizon is not obligated to construct new Unbundled Network Elements where
8 such network facilities have not already been deployed for Verizon's use in
9 providing service to its wholesale and retail customers. ...
10

11 Significantly, when comparable facilities need to be constructed in order for Verizon to serve a
12 retail end-user customer or to provide a special access facility, its policy with respect to
13 constructing such new facilities is just the opposite. In a response to a Rhode Island PUC Staff
14 data request PUC-CON-1-12 in RI PUC Docket 3363 (a copy of which is also included in
15 Attachment 1), the Company stated that

16
17 As a general matter, retail orders are not rejected due to a lack of facilities because
18 Verizon generally will undertake to construct the facilities required to provide
19 service at tariffed rates (including any applicable special construction rates) if the
20 required work is consistent with Verizon's current design practices and
21 construction. *Like its retail and carrier access customers, Verizon's CLEC*
22 *customers may request Verizon to provide DS1 and DS3 services pursuant to the*
23 *applicable state or federal tariffs.*
24

25 Emphasis supplied. In its response to the RI PUC Staff, Verizon provided the legal basis for its
26 policy:

68. (...continued)
affirmed this finding in the *TRO* at paras. 636 and 645.

1 ... the 1996 Act only requires incumbent carriers to unbundle their existing
2 network, not to construct network elements simply to make them available on an
3 unbundled basis to competing carriers. As the Eighth Circuit explained,
4 “subsection 251(c)(3) implicitly requires unbundled access only to an incumbent
5 LEC’s existing network – not to an as yet unbuilt superior one.” *Iowa Util. Bd. v.*
6 *FCC*, 120 F.3d 753, 818 (8th Cir. 1997), appealed on other grounds, *AT&T Corp.*
7 *v. Iowa Utils. Bd.*, 119 S. Ct. 721, 737 (1999).
8

9 Verizon reiterated this same position in an *ex parte* communication to the FCC in the *TRO* that
10 was cited by the Commission.⁶⁹ A copy of that letter is provided as Attachment 2.
11

12 60. Contentions by the ILECs and by their various declarants that ILECs face *elevated risks*
13 with respect to their “investments” in facilities used for the provision of UNEs are belied by
14 Verizon’s position on construction – and by the Commission’s rulings at paras. 683, 636 and 248
15 of the *TRO*. Specifically, at para. 683, the Commission recognizes that there may be elevated
16 risks associated with “new” services such as those involving fiber optic facilities vis-a-vis
17 traditional voice services. At para. 248, the Commission expressly determines that ILECs will
18 *not* be required to provide unbundled broadband facilities for the high-frequency portion of
19 conventional facilities as UNEs to CLECs. And at para. 636, the Commission accepts Verizon’s
20 position that ILECs are *not* “required to trench or place new cables for a requesting carrier,”
21 reasoning that “[r]equests for altogether new transmission facilities, whether serving an existing
22 customer or along a new route, demand far more planning, engineering, and technical resources
23 than the routine modifications discussed above, and include rights-of-way issues, greater
24 demands for on-site construction personnel, and substantial periods of actual construction.” With

69. *TRO*, at fn. 1928 at para. 636.

1 respect to those *narrowband* facilities that ILECs *may* be required to provide as UNEs following
2 the completion of the 51 state PUC “impairment” proceedings, there will be no consequential
3 ILEC investment and no elevated risk.

4
5 **The ILECs misinterpret and misapply the Commission’s “risks of a facilities-based**
6 **competitive market” cost of capital requirement to imply that the level of “investment risk”**
7 **should be that which would confront an entirely hypothetical and fictitious “UNE-only”**
8 **carrier.**
9

10 61. In that regard, several of the ILECs and their declarants seem to interpret the para. 680
11 determination “that a TELRIC-based cost of capital should reflect the risks of a competitive
12 market” as somehow implying that what the FCC meant was the risk confronting a *UNE-only*
13 *carrier* operating under conditions of facilities-based competition. The notion of a “UNE-only
14 carrier” makes no sense when considered in the overall context of the 1996 Act as well as with
15 respect to the above-cited portions of the *TRO*.

16
17 62. In enacting Sections 251 and 252, Congress understood that *incumbent* LECs possessed
18 unique resources that entrants could not be expected to replicate without expending considerable
19 amounts of time and economic resources. The UNE requirement was imposed precisely because
20 ILECs possessed legacy infrastructures that, by virtue of the ILECs’ traditional status as
21 regulated public utilities, were deployed ubiquitously throughout each ILEC’s operating
22 territory. When provided, UNEs utilize a small portion of those common resources, and benefit
23 specifically from the scale and scope economies of the ILEC network. The “T” in TELRIC
24 refers not to the total quantity of UNEs, but to the total quantity of network elements deployed

1 by the ILEC for its use in providing retail services as well as for providing UNEs. Indeed,
2 several state commissions (including those in Pennsylvania, Florida and California) had
3 considered the concept of creating a “UNE-only” carrier through structural separation of the
4 incumbent LEC’s network and retail operations. Under this concept, the ILEC’s retail entity
5 would have purchased UNEs from the network entity on exactly the same basis and under
6 exactly the same terms and conditions as any other CLEC. In each such “structural separation”
7 proceeding, the ILEC strenuously opposed any form of structural separation, arguing that, among
8 other things, the physical separation of the network and retail functions would be extremely
9 inefficient and costly. It is, to say the least, highly disingenuous for the ILECs to now posit the
10 fiction of a UNE-only carrier as the construct to be utilized in evaluating the “risks” inherent in
11 providing UNEs to CLECs.

12
13 **There is no basis to conclude that the risks of CLEC “cancellation” of UNEs are any**
14 **greater than the risks, already included in the ILEC’s cost of capital, that an end user retail**
15 **customer will discontinue the ILEC’s service.**
16

17 63. In that context, Verizon’s Dr. Vander Weide proposes to attach a substantial (3.92%)
18 “risk premium” to the ILECs’ cost of capital to reflect the additional risks he seeks to ascribe to
19 “cancelable leases” for UNEs. Vander Weide argues that “the option to cancel [i.e., to
20 discontinue the use of a UNE] allows the CLECs to walk away from their use of the ILEC’s
21 network at no cost. ... The CLECs’ option to cancel imposes *a severe cost on the ILECs*. If the
22 CLECs build their own facilities, or use alternative facilities or technologies, the ILEC’s revenue

1 will decline, while their investment and operating expenses remain the same.”⁷⁰ In advancing
2 this theory, Vander Weide is implicitly suggesting that the risk that a CLEC will “cancel a UNE”
3 is materially greater than the risk that an end user ILEC customer will discontinue her retail
4 service – a risk that is already factored into the ILEC’s cost of capital. Dr. Vander Weide offers
5 *no evidence whatsoever* that the potential for “cancellation” of a UNE by a CLEC is greater than
6 the potential for cancellation of a retail service by an end user customer. Nor could he, since *if*
7 *anything* precisely the opposite is likely the case. Moreover, whatever that potential “risk” may
8 be, it must be analyzed separately as it would apply to loops vs. switching. Dr. Vander Weide
9 has not done that either.

10
11 64. The Commission has made a finding of “national impairment” with respect to mass
12 market DS-0 voice grade loops.⁷¹ As well it should. The only alternative to an ILEC loop for
13 mass market customers is the cable television provider, to the extent that it offers basic telephone
14 service to a particular customer. Where cable telephony is available, the end user retail customer
15 has a far greater likelihood of “cancelling” her ILEC service to migrate over to cable than would
16 a CLEC that is providing mass market end user services via UNE-loops or UNE-P. Moreover, if
17 that CLEC’s customer switches to any wireline carrier – including the ILEC itself – *other than*
18 *the cable company*, there will be *no cancellation* of the UNE-loop; it will simply be transferred

70. Declaration of James H. Vander Weide Submitted in Support of the Comments of the Verizon Telephone Companies, December 16, 2003 (“*Vander Weide (Verizon)*”), at 9. Emphasis supplied.

71. *TRO*, at para. 211.

1 to another CLEC or back to the ILEC. Either way, there is no net cancellation, and no risk of
2 cancellation that is any greater – and possibly less – than for the ILEC’s retail customers.

3
4 65. The Commission has made a finding of national impairment with respect to UNE
5 switching, but it subjects this finding to a more “granular” analysis by state commissions.⁷² The
6 future of this UNE (and of UNE-P) is to be decided by each of the 51 state commissions in cases
7 currently pending. While the ILECs may confront a “risk of cancellation” of UNE-switch
8 services in the event that a CLEC elects to (or is forced to) utilize its own switch, the potential
9 risk to the ILEC in such an event is minimal and, to a very large extent, is of the ILEC’s own
10 making. It is the ILECs, after all, who are aggressively pushing for “no impairment” findings
11 with respect to UNE-switching and UNE-P. Where the ILECs are successful, CLECs will be
12 forced to migrate customers off of ILEC switches and onto switches owned by those CLECs.
13 The suggestion that this source of “additional risk” should be compensated by allowing the
14 ILECs to incorporate a “risk-adjusted” cost of capital into the UNE prices is like the child who,
15 after murdering his parents, seeks the mercy of the court because he is an orphan. That aside,
16 there is in any event very little “risk” associated with the “cancellation” of switch UNEs. First,
17 switch capacity can be and regularly is augmented in very small increments. In general, the
18 “cancellation” of a switch UNE would free up capacity that could be shifted to other customers
19 and other uses, thus allowing the ILEC to defer, for a time, the next scheduled switch capacity
20 addition. Moreover, end office switching typically represents only about 18% of total ILEC

72. *Id.*, at para. 419.

1 plant in service.⁷³ Thus, even if ILECs were to lose, for example, as much as 10% of their end
2 user customers to non-cable CLEC-owned switching *and* assuming for the sake of discussion
3 that the ILECs had no other use – immediate or eventual – for the freed-up switch capacity, that
4 would still “strand” *at the very most* only about 1.8% of total ILEC investment. And even this
5 absolutely “worst case scenario” – which is highly unlikely in the extreme – could not possibly
6 justify the 3.93% increment to the ILECs’ cost of capital (based upon California figures) that Dr.
7 Vander Weide characterizes as the “risk of cancelable leases.”⁷⁴

8
9 66. As the Commission may be aware, Verizon attempted to sell the Vander Weide
10 cancelable-lease-risk-premium theory in a recently completed cost of capital proceeding before
11 the New Hampshire Public Utilities Commission, NH PUC Docket No. DT-02-010. In its Order
12 issued January 16, 2004, the New Hampshire Commission soundly rejected Verizon’s and Dr.
13 Vander Weide’s story:

14
15 Finally, no reasonable basis has been advanced in this case to apply a cancelable
16 lease analogy to the UNE business, as opposed to the retail business. With the
17 exception of individual long term contracts or special tariffs, none of Verizon’s
18 customers, wholesale or retail, are bound to remain with Verizon. Arguably, any
19 premium that may apply to reflect the cancelable nature of the use of Verizon’s
20 facilities applies to retail service as well as wholesale service. However, as we
21 note above, we have no basis on this record to differentiate the risk of retail and

73. ARMIS Report 43-03 for 2002 gives total BOC plant in service as \$364.1-billion (row 2210) and BOC Central Office Switching (row 2001) at \$65.2-billion, i.e., just under 18%.

74. Vander Weide (Verizon), Attachment C, at 3.

1 UNE business. In any event, the risk of revenue loss from demand reductions is
2 captured in the overall rate of return, properly set, as is all risk facing the firm.⁷⁵
3

4 The full text of that portion of the New Hampshire Order dealing with the “cancelable lease risk
5 premium” is provided herewith as Attachment 3.
6

7 67. The specific findings of the New Hampshire Commission, with which I concur, can be
8 summarized as follows:
9

10 (1) Retail customers can also cancel ILEC service, and there was no showing that the
11 likelihood of a CLEC cancelling a UNE is any greater than that for a retail customer
12 cancelling retail service.
13

14 (2) Even if the UNE or retail service is cancelled, the ILEC can reuse the same facilities
15 either to serve another customer at the same location, or another nearby customer. In
16 the case of a UNE, if the cancellation is the result of the decision by the retail customer
17 to return to the ILEC (or take service from a different CLEC), the facility will continue
18 to be used. In fact, if the migration is from CLEC to ILEC, the ILEC's revenues could
19 actually increase.
20

75. *Verizon New Hampshire Investigation into Cost of Capital, Order Establishing Cost of Capital*, New Hampshire Public Utilities Commission Docket No. DT 02-110, Order No. 24,265, January 16, 2004, slip. op. at 47.

1 (3) Such risks as may exist are already captured in the overall ILEC cost of capital, and no
2 further premium is necessary.
3

4 (4) It was Verizon's own decision to offer UNEs only on a month-to-month basis; had
5 Verizon also offered CLECs the option to take the UNE under a term contract, the risk
6 of cancellation would have been effectively transferred to the CLEC.
7

8 (5) UNEs represent an extremely small part of the ILEC's overall business, so even if such a
9 risk is present, its effect would be minimal. Verizon is not required to incur investment
10 expenses specifically to provide UNEs to CLECs; whatever UNEs are being provided
11 are furnished out of the same network that is being used to provide retail end user
12 services.
13

14 For all of these reasons, the Commission should reject and dismiss the "calcelable lease risk
15 premium" theory and ascribe no additional risk to those specific UNEs that ILECs will continue
16 to be required to provide to CLECs.
17

18 **Any "carrier of last resort" risks that an ILEC might confront, to the extent not fully offset**
19 **by its incumbency advantages and economies of scale and scope, are no different as**
20 **between UNEs and end user retail services, and have in any event been incorporated into**
21 **the financial market's evaluation of ILEC securities.**
22

23 68. The RBOCs seek to ascribe to UNEs yet another additional source of risk – this one
24 stemming from the ILECs' carrier-of-last-resort ("COLR") obligation – and argue that it should

1 be reflected as an additional “risk premium” on the cost of capital to be used in UNE TELRIC
2 studies.⁷⁶ Dr. William Taylor for BellSouth argues that “the COLR obligation itself introduces
3 the risk of unrecoverable network assets in the event that anticipated demand does not
4 materialize.”⁷⁷ As with the case of the “cancelable leases,” there is no *a priori* basis to expect
5 that such COLR “risks” as may exist are any different or disproportionately greater with respect
6 to those specific narrowband UNEs that ILECs will continue to be required to provide – and for
7 which they are under no obligation to invest – and end user services that ILECs provide. In any
8 event, the ILECs have offered no quantification of these “additional COLR risks” that they allege
9 to exist.

10
11 69. ILECs possess enormous incumbency and ubiquity advantages that likely more than
12 offset any COLR-specific costs or risks that might be present. Legacy mass market customers
13 are the ILECs to lose, whereas CLECs must expend substantial financial and other resources to
14 convince those ILEC customers to take service from them. ILECs were able to acquire their
15 legacy networks at minimal investor risk, and enjoy the often irreproducible economies of scale
16 and scope when competing with the new entrants. ILECs have also been allowed to exploit their
17 legacy customer base to sell long distance and other deregulated and nonregulated services,
18 affording them an important head start advantage and enabling them to enter new markets at far
19 lower per-customer acquisition cost – not to mention enormously lower risk – than that which
20 confronts non-ILEC local and long distance carriers. While ILECs persist in whining about

76. Taylor/Banerjee/Ware (BellSouth), at 9-10, 27-28, 30; Weisman (Qwest), at 25-26.

77. *Id.*, at p. 42.

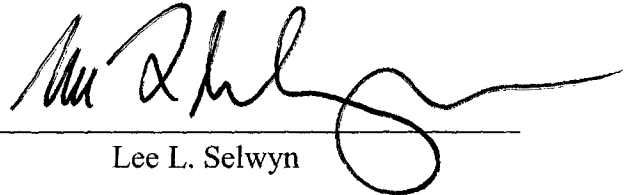
1 “regulatory disparities” like COLR and other requirements from which their nascent rivals are,
2 for the moment, largely exempt, the enormity of their scale, scope, incumbency and head-start
3 advantages easily overcomes these so-called “regulatory risks” to the extent that such “regulatory
4 risks” are actually present in the first place.

5
6 70. If and to the extent there actually are any real COLR risks and costs that are unique to
7 ILECs, these need to be addressed and resolved via explicit funding mechanisms, as in the case
8 of universal service funding, and not through the kind of risk and cost shifting that the ILECs are
9 here proposing. However, if ILECs are to be reimbursed for COLR and similar costs and risks,
10 they should then also be required to make explicit offsets to the prices for their regulated basic
11 monopoly services to compensate captive ratepayers for the numerous incumbency and affiliate
12 benefits that they are allowed to uniquely confer upon their nonregulated lines of business with
13 minimal or no compensation.

14
15 71. For all of the reasons discussed herein, there is no basis whatsoever to differentiate
16 between the cost of capital applicable to those “impairment” UNEs that ILECs will continue to
17 provide and the cost of capital that is appropriate for the ILEC entity as a whole.

Verification

The foregoing statements are true and correct to the best of my knowledge, information and belief.



Lee L. Selwyn

Attachment 1

**Verizon policies regarding provision
of UNEs and retail services
where adequate facilities do not exist**

Verizon New England Inc.

State of Rhode Island

Docket 3363

Respondent: Tom Maguire

Title: Vice President – Network
Services Group

REQUEST: Rhode Island Public Utilities Commission, Set 1

DATED: August 15, 2001

ITEM: PUC-CON 1-11 The following questions are in reference to the attached letter appearing on the Verizon.com website: “DS1 and DS3 Unbundled Network Elements Policy”, July 24, 2001 (downloaded from http://www22.verizon.com/wholesale/frames/generic_frame_east/0,2656,industry_letters,00.html, on August 1, 2001).

- a. Please provide a copy of the letter.
- b. The letter states (para. 2) that “Conversely, Verizon is not obligated to construct new Unbundled Network Elements where such network facilities have not already been deployed for Verizon’s use in providing service to its wholesale and retail customers.” Please provide a legal citation to every statute or ruling which Verizon believes supports that statement.
- c. “Moreover, although Verizon has no legal obligation to add DS1/DS3 electronics to available wire or fiber facilities to fill a CLEC order for an unbundled DS1/DS3 network element...” Please provide a legal citation to every statute or ruling which Verizon believes supports that statement.
- d. Does Verizon-RI believe that the statements referenced in parts a. and b. above apply to its operations in Rhode Island? If the answer is anything but an unqualified yes, explain in detail how its legal obligations in Rhode Island differ from those holding in other states, relative to each of these statements.

VZ #59

ITEM: PUC-CON 1-11

- e. Has Verizon or Verizon-RI ever issued a statement concerning its policies concerning the construction of new DS1 and/or DS3 facilities relative to its provision of retail services, including but not necessarily limited to Flexpath T-1 exchange access lines/trunks? If the answer is yes, please provide a copy of that statement. If the answer is no, please describe in detail the policy that Verizon-RI applies to orders for retail Flexpath T-1 exchange access lines/trunks when facilities are not initially available to fulfill the order.

REPLY:

- a. Please see the letter attached.
- b. The FCC's definition of the local loop network element supports the position that ILECs are not required to construct new Unbundled Network Elements where such network facilities have not already been deployed for Verizon's use in providing service to its wholesale and retail customers nor to add DS1/DS3 electronics to available wire or fiber facilities to fill a CLEC order for an unbundled DS1/DS3 network element. Under 47 C.F.R. § 51.319(a), ILECs must provide requesting carriers access to the local loop and subloop. Subsection 51.319(a)(1) of the FCC's regulation provides that

[t]he local loop network element is defined as "a transmission facility between a distribution frame . . . and the loop demarcation point at an end-user customer premises, including inside wire owned by the incumbent LEC. The local loop network element includes all features, functions and capabilities of such transmission facility. Those features, functions and capabilities include, but are not limited to, dark fiber, attached electronics (except those electronics used for the provision of advanced services, such as [DSLAMs]), and line conditioning. (emphasis added)

As this provision indicates, the "features, functions and capabilities" that a CLEC may avail itself of include attached electronics, meaning electronics already connected to the wire or fiber, in contrast to unattached electronics.

VZ #59

REPLY: PUC-CON
1-11 Con't

The fact that Verizon RI must condition wire facilities, including conditioning them so that they can pass signals at a DS1 rate, similarly does not mean Verizon RI must add or attach electronics to a copper or fiber facility. Under Subsection 51.319(a)(3)(i) of the FCC's regulations,

Line conditioning is defined as the removal from the loop of any devices that may diminish the capability of the loop to deliver high speed switched wireline telecommunications capability, including xDSL service. Such devices include, but are not limited to, bridge taps, low pass filters, and range extenders. (emphasis added)

Nothing in this definition, or in the FCC's related discussion in the *UNE Remand Order*, suggests that an ILEC must, as part of its line conditioning obligations, add or attach electronics to a copper or fiber facility.

More broadly, the 1996 Act only requires incumbent carriers to unbundle their existing network, not to construct network elements simply to make them available on an unbundled basis to competing carriers. As the Eighth Circuit explained, "subsection 251(c)(3) implicitly requires unbundled access only to an incumbent LEC's existing network - not to a yet unbuilt superior one." *Iowa Util. Bd. v. FCC*, 120 F.3d 753, 813 (8th Cir. 1997), appealed on other grounds, *AT&T Corp. v. Iowa Utils. Bd.*, 119 S. Ct. 721, 737 (1999).

- c. Please see the Company's reply to part b above.
- d. The statements referenced in parts a. and b. as well as c. above apply to Verizon's operations in Rhode Island.
- e. Verizon RI objects to this request on the grounds that it would require a burdensome and time-consuming record search. Notwithstanding its objection, Verizon RI responds as follows. Verizon RI is not aware of any written statement(s) issued to retail customers concerning its construction policies.



July 24, 2001

DS1 and DS3 Unbundled Network Elements Policy

A number of carriers have recently expressed concern that Verizon is changing its policies with respect to the construction of new DS1 and DS3 Unbundled Network Elements. This is not the case. To ensure that there is no misunderstanding on this point this letter restates Verizon's policies and practices with respect to the provisioning of unbundled DS1 and DS3 network elements.

In compliance with its obligations under applicable law, Verizon will provide unbundled DS1 and DS3 facilities (loops or IOF) to requesting CLECs where existing facilities are currently available. Conversely, Verizon is not obligated to construct new Unbundled Network Elements where such network facilities have not already been deployed for Verizon's use in providing service to its wholesale and retail customers. This policy, which is entirely consistent with Verizon's obligations under applicable law, is clearly stated in Verizon's relevant state tariffs and the CLEC Handbook, and is reflected in the language of Verizon's various interconnection agreements.

This does not mean that CLECs have no other options for obtaining requested facilities from Verizon.

- In areas where Verizon has construction underway to meet anticipated future demand, Verizon's field engineers will provide a due date on CLEC orders for unbundled DS1 and DS3 network elements based on the estimated completion date of that pending job, even though no facilities are immediately available. Rigid adherence to existing policies could dictate that the field engineers reject these orders due to the lack of available facilities; but in an effort to provide a superior level of service, Verizon has chosen not to do so. In such cases, the result is that the order is filled, but the provisioning interval is longer than normal. At the same time, Verizon's wholesale customers should not confuse these discretionary efforts to provide a superior level of service with a perceived *obligation* to construct new facilities.
- Moreover, although Verizon has no legal obligation to add DS1/DS3 electronics to available wire or fiber facilities to fill a CLEC order for an unbundled DS1/DS3 network element, Verizon's practice is to fill CLEC orders for unbundled DS1/DS3 network elements as long as the central office common equipment and equipment at end user's location necessary to create a DS1/DS3 facility can be accessed. However, Verizon will reject an order for an unbundled DS1/DS3 network element where (i) it does not have the common equipment in the central office, at the end user's location, or outside plant facility needed to provide a DS1/DS3 network element, or (ii) there is no available wire or fiber facility between the central office and the end user.
- Specifically, when Verizon receives an order for an unbundled DS1/DS3 network element, Verizon's Engineering or facility assignment personnel will check to see if existing common equipment in the central office and at the end user's location has spare ports or slots. If there is capacity on this common equipment, operations personnel will perform the cross connection work between the common equipment

and the wire or fiber facility running to the end user and install the appropriate DS1/DS3 cards in the existing multiplexers. They will also correct conditions on an existing copper facility that could impact transmission characteristics. Although they will place a doubler into an existing apparatus case, they will not attach new apparatus cases to copper plant in order to condition the line for DS1 service. At the end user's end of the wire or fiber facility, Verizon will terminate the DS1/DS3 loop in the appropriate Network Interface Device (Smart Jack or Digital Cross Connect (DSX) Panel).

In addition, if Verizon responds to a CLEC request for an unbundled DS1/DS3 network element with a Firm Order Completion date (FOC), indicating that Verizon has spare facilities to complete the service request, and if Verizon subsequently finds that the proposed spare facilities are defective, Verizon will perform the work necessary to clear the defect. In the event that the defect cannot be corrected, resulting in no spare facilities, or if Verizon has indicated that there are spare facilities and Verizon subsequently finds that there are no spare facilities, Verizon will not build new facilities to complete the service request.

Finally, wholesale customers of Verizon, like its retail customers, may request Verizon to provide DS1 and DS3 services pursuant to the applicable state or federal tariffs. While these tariffs also state that Verizon is not obligated to provide service where facilities are not available, Verizon generally will undertake to construct the facilities required to provide service at tarified rates (including any applicable special construction rates) if the required work is consistent with Verizon's current design practices and construction program. Even in these cases, of course, Verizon must retain the right to manage its construction program on a dynamic basis as necessary to meet both its service obligations and its obligation to manage the business in a fiscally prudent manner.

In summary, although Verizon's policies regarding the construction of new DS1 and DS3 Unbundled Network Elements remain unchanged, Verizon continues to strive to meet the requirements of its wholesale customers for unbundled DS1 and DS3 facilities in a manner that is consistent with the sound management of its business.

If you have any questions regarding Verizon's unbundled DS1/DS3 building practice, you may contact your Account Manager.

Verizon New England Inc.

State of Rhode Island

Docket 3363

Respondent: Tom Maguire
Title: Vice President – Network
Services Group

REQUEST: Rhode Island Public Utilities Commission, Set 1

DATED: August 15, 2001

ITEM: PUC-CON 1-12 For each month beginning in January 2000 and extending to the most recent month for which data is available, provide the following information. In your response, please provide a breakdown by wire center, if available.

- a. The total number of orders for Flexpath T-1 exchange access lines/trunks which were rejected due to a determination by Verizon-RI that facilities were not available.
- b. The total number of orders for T-1 Special Access lines which were rejected due to a determination by Verizon-RI that facilities were not available.
- c. The total number of orders for T-1 UNE loops which were rejected due to a determination by Verizon-RI that facilities were not available.

REPLY: Verizon RI does not track the reason(s) why a retail or wholesale order may be rejected (e.g., due to a lack of facilities). As a general matter, retail orders are not rejected due to a lack of facilities because Verizon generally will undertake to construct the facilities required to provide service at tariffed rates (including any applicable special construction rates) if the required work is consistent with Verizon's current design practices and construction. Like its retail and carrier access customers, Verizon's CLEC customers may request Verizon to provide DS1 and DS3 services pursuant to the applicable state or federal tariffs.

VZ #60

Attachment 2

**Verizon *Ex Parte* letter
CC Docket No. 01-338
October 18, 2002**

W. Scott Randolph
Director – Regulatory Affairs



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Washington, DC 20005

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October 18, 2002

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Ex Parte: CC Docket Nos. 01-338, 96-98, and 98-147

Dear Ms. Dortch:

At the request of staff, Verizon provides this further clarification on Verizon's high capacity loop provisioning practices.

The dispute about Verizon's provisioning policy is best understood in the context of the larger debate about whether the Commission should continue to require ILECs to provide high capacity loops such as DS-1s and DS-3s on an unbundled basis. While CLECs historically have invested heavily in their own fiber optics and other facilities to provide high capacity services, more recently, they are increasingly demanding unbundled elements instead, even in the most competitive metropolitan areas. In fact, carriers even demand unbundled elements in locations such as the K Street corridor in downtown D.C., where any motorist can testify to the scope of competitive facilities deployment. And those carriers increasingly go so far as to demand that Verizon build new high capacity facilities solely to make them available as unbundled elements at prices that are below what they (or any carrier) could build them for.

The threshold question in this proceeding is whether high capacity loops should be unbundled in the first place. As Verizon has explained at length elsewhere, as a general matter, they should not.¹ Indeed, competing carriers already have deployed extensive high capacity facilities of their own. And where they have not yet done so, those carriers have readily admitted that they have successfully entered the market using special access services from incumbents or

¹ See Letter from William P. Barr to Honorable Michael Powell dated October 16, 2002.

other providers. Under these circumstances, making it clear that these high capacity facilities do not have to be unbundled will restore incentives for carriers to invest in facilities of their own.

Still, until the Commission decides this threshold issue, Verizon's policy for provisioning unbundled network elements complies fully with the Act. Pursuant to that policy, Verizon will provide unbundled network elements, including DS-1s and DS-3s, where the facilities necessary to provision the service requested exist and are currently available. Furthermore, although Verizon is not required to construct network elements at the request of a CLEC, Verizon does perform some construction work to provide high capacity loops even where not all of the facilities necessary to provision the service are available in Verizon's assignable inventory.

While we understand that some CLECs have complained to the Commission about this policy, no one seriously claims that Verizon is required to construct network facilities just to make them available to CLECs as UNEs. Nor could they. The Commission has made clear that, "the Act does not require [Verizon] to construct network elements ... for the sole purpose of unbundling those elements for ... other carriers."² And the Commission has steadfastly adhered to this basic principle.³ This ruling, moreover, is entirely consistent with and, indeed, required by the portion of the Eighth Circuit's decision in *Iowa Util. Bd. v. FCC* that has never been challenged, where the Court explained that "[s]ubsection 251(c)(3) implicitly requires unbundled access only to an incumbent LEC's *existing* network" As a result, there is no real question that Verizon is not required to deploy new copper or fiber cable or to install new equipment in its central offices or elsewhere solely to unbundled the new facilities or equipment. That question has been definitively resolved.

The only real question in this debate then is where to draw the line in terms of defining whether or not facilities exist and what constitutes construction. In that regard, Verizon has adopted reasonable policies under which Verizon has and will continue to do more than is required by the Act.

When a CLEC places an order for a UNE loop, Verizon checks to determine whether the facilities necessary to provision the service exist and are available to provision the order. If the necessary facilities exist, Verizon will provision the UNE loop requested. Where the facilities necessary to provision the service requested do not exist, however, construction is required.

Although Verizon is not required to do so, Verizon does perform some construction work in order to provide CLECs high capacity loops where facilities do not exist. This work includes ordering and installing line cards in existing multiplexers and equipment shelves at the central office and at the customer's location; cross connecting existing common equipment, such as multiplexers, to the copper or fiber facility being used; placing doublers in an existing apparatus case where necessary to provision the service; or installing a network interface device at the customer's premise. In addition, when construction of the facilities necessary to provision the service requested is already planned, Verizon will provision the UNE requested once construction of those facilities has been completed.

² See Virginia Arbitration Non-Cost Order ¶ 468.

³ See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 11 FCC Rcd 15499, ¶ 451 (1996) (limiting "the provision of unbundled interoffice facilities to existing incumbent LEC facilities."); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, 15 FCC Rcd 3696, ¶ 324 (1999) (same).

Verizon, however, does not (and is not required to) construct network elements solely for the purpose of unbundling those elements where the construction work involves installing new copper or fiber cabling, equipment, or electronics. Although some CLECs have suggested that this work involves relatively minor upgrades or modifications to the network; in fact, as the descriptions below indicate, substantial construction activity is required often involving multiple work groups, including third-party vendors, and an additional outlay of capital. Specifically, the following situations require construction work that Verizon is not required to (and does not) undertake:

B. DS-1 Over Copper

1. *No Available Copper Spares.*

In the absence of available fiber facilities, spare copper facilities must exist before Verizon can provision a DS-1 loop. Although Verizon will make reasonable attempts to clear defective cable pairs that exist in the end user's service terminal, if Verizon cannot clear defective facilities and if no other spare facilities exist, construction would be required to add copper facilities at the end user location before a DS-1 could be provisioned. To add these facilities, Verizon would have to actually lay copper cable to the end user's location, work that no one seriously argues Verizon is required to do.

This construction work includes planning, designing, and installing or rearranging copper cables to the end user's location. Planning engineers identify the nearest available copper feeder facilities that can be allocated to the end-user location. The Planning engineer will go as close to the source of the copper feeder facilities, typically the central office, as necessary for the installation of new copper facilities to the end user location. Design engineers then do the detailed design work required to extend those feeder facilities, and to install any additional copper distribution facilities that might be required, to the end users location. They also identify structural requirements – manholes, pole licensing/placement/rearrangements, building entrance conduit, terminal space requirements, right of way requirements, etc. – for the placement copper facilities.

Once the detailed design is complete, physical construction can begin and typically includes:

- Securing access to manholes, poles and/or buried cable;
- Constructing new manholes, poles and conduit;
- Securing permits and/or rights of way;
- Establishing a safe work area in public rights of way;
- Installing the cable in or on the new/existing structure;
- Installing terminals; and
- Splicing cable pairs in manholes, on poles, in buried enclosures and in buildings

This construction activity creates new copper facilities to the end user location. Without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 12% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states⁴ were rejected for this reason.

2. No Apparatus/Doubler Case.

For DS-1 loops greater than 12,000 feet, a doubler, which is also known as a repeater, regenerator, or range extender, is required to amplify the HDSL signal. Doublers are often used to "boost" a signal traveling over long distances. These doublers are housed in an apparatus or doubler case that is spliced into the loop at a location where the electrical properties of the copper loop no longer support the HDSL signal. The exact location is dependent on the loop make up (gauge, average ambient temperature and sheath type) of the cable pair but is typically 9000-12,000 feet. Accordingly, if the cable pairs or loop available for assignment to the end user's serving terminal are greater than 12,000 feet and do not contain an apparatus case, construction work would be required to add this new equipment before a DS-1 could be provisioned.⁵

The construction work required to install an apparatus case is complex. As an initial matter, the cable sheath containing the pairs must be secured and spliced into. The work required to do this depends on the physical location (building, street, right of way) and the cable plant type (aerial, underground, direct buried) of the apparatus design location. Aerial cable is typically accessed using bucket trucks after complying with any local traffic control requirements.⁶ Direct buried cable is accessed, where possible, through splice enclosures that come out of the ground at splice points determined by the cables' original design/placement. If the apparatus design location does not coincide with a nearby existing splice location, the cable sheath must be marked (via Dig Safe procedures) and exposed, consistent with local traffic control regulations. Underground cable sheaths must be accessed through a manhole. In addition to complying with local and state requirements and regulations,⁷ the manhole must be pumped and filtered of any water and sediment and then tested and cleared of any hazardous materials or gases. Provided there are no safety issues, the manhole can be entered and the splicing work can proceed.

Once the cable sheath is secured, access to the cable pairs within the sheath is accomplished either by entering an existing splice (if one exists) or splicing into the cable – cutting into the cable sheath directly and then pulling slack or adding additional slack cable to create a

⁴ Former Bell Atlantic South includes New Jersey, Pennsylvania, Delaware, District of Columbia, Virginia, West Virginia, and Maryland. Verizon does not have readily available data for the former Bell Atlantic North states but notes that the same policies apply in the former Bell Atlantic North states.

⁵ In addition, it is also likely that load coils would need to be removed.

⁶ Most municipalities require traffic control and a police detail when placement of the vehicle will impede traffic flow.

⁷ Most municipalities require a police detail for local traffic control before the work can proceed. Similarly, most states require that the Manual on Uniform Traffic Control Devices ("MUTCD") be adhered to. In addition, most States have a Department of Environmental Management requirement to test sediment contents for contaminants. If hazardous materials are present, special removal processes may need to be followed, and Verizon typically contracts this work out to third parties. If no hazardous materials are found, pumping and filtering of the manhole may proceed.

Ms. Marlene H. Dortch

October 18, 2002

Page 5

new splice. If the cable is pressurized, as is the case with most underground cable, the sheath also will need to be buffered before this work can begin.⁸

Once the relevant cable pairs within the sheath have been secured, a new apparatus case must be mounted. This apparatus case housing is typically mounted to a wall, pole, or buried enclosure, and the cable stubs to the equipment are connected to the cable pairs in the new splice. Once that is done, Verizon then must order and install the necessary doublers before the service can be provisioned. This construction work, therefore, requires the installation of new equipment, something Verizon is not required to do. And without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 45.2% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

3. *No Central Office or Remote Terminal Repeater Equipment.*

To provision a DS-1 copper loop facility, there also must be an HDSL Terminal Unit (HTU), also known as a repeater, in both the central office and at the end user's remote terminal location. An (HTU) physically terminates an HDSL connection at both the Central Office and the Remote Terminal and is installed in a repeater shelf. If there are no spare slots in the repeater shelf, in either the central office or the remote terminal, construction work would be required to add new repeater equipment before a DS-1 loop could be provisioned.

This construction work includes planning, designing, and installing new repeater equipment in a Central Office and/or Remote Terminal relay rack, a 10 to 12 foot steel equipment mounting structure.⁹ The physical work includes installing the equipment into the relay rack and running cable to appropriate termination points – Digital Cross Connect (DSX) Panels, Digital Access and Cross Connect Systems (DACS), and Distribution Frame/Terminal Blocks – within the Central Office and at the Remote Terminal location.¹⁰ Without the addition of this new equipment, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 4.6% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

4. *No Riser Cable or Buried Drop.*

Verizon adheres to the Commission's Demarcation Point and Minimum Point of Entry rules to determine the availability of riser/drop facilities. In the event there is no riser cable – vertically placed cable – to a customer location in a multiple floor building, this cable likewise would have to be installed before the facilities necessary to provision the service requested would exist.

⁸ Buffering is a procedure where a temporary bypass air pipe is installed to permit uninterrupted airflow to the field side of the splice in order to prevent cable failures due to water intrusion while the splice work is in progress.

⁹ This equipment must be ordered, generally on a 30 day EFI (engineer/furnish/ install) interval, and is installed using outside vendors. The relay rack must also have spare capacity. In the event capacity in the relay rack is exhausted, a new relay rack must be planned, designed and constructed.

¹⁰ This may include running wire to termination points on different floors within the central office. In addition, space constraints at Remote Terminal locations are often limiting factors in the construction of additional capacity.

In many cases, however, there is no way to physically provide cable continuity to the customer. In some buildings, Verizon may not have access to install new riser cable. This can occur when the tenant/end user is located on a floor above the Demarcation Point. Similarly, when a customer has no building entrance structure (pole line or underground conduit) and is served with an existing direct buried facility and that facility is exhausted, there is no physical way to provide additional capacity to the location until those structures are constructed by the property owner.¹¹ Verizon would then need to build cable facilities from the Rate Demarcation Point to the nearest available spare capacities in much the same way as outlined in part A.1 above. Again, this work requires laying cable, which Verizon is not required to do.

Between January and June 2002, 0.4% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

B. DS-1 and DS-3s Over Fiber.

5. No Fiber or Multiplexer.

To provision a DS-1 loop over fiber, there must be fiber cable and multiplexer capacity in both the central office and at the end user's location. If there is no fiber cable or multiplexer capacity, in either the central office or at the end user's location, construction would be required to add new fiber cable or multiplexers before the DS-1 or DS-3 could be provisioned.

To install fiber cable requires securing access to structures in the underground and aerial plant. This includes manhole and pole procedures as outlined in A.3 above. Fiber optic cable must then be installed in, or on, those structures similar to the physical construction procedures outlined in A.1 above.

Fiber facilities also require specialized splicing operations (fusion splicing, "clean room" conditions) to establish continuity in the fiber. The fiber is terminated in specially designed fiber distribution bays in the central office and fiber trays at the customer location. Once installed, the fiber must be accepted with a series of Optical Time Domain Reflectometer ("OTDR") equipment. Once accepted, the fiber must be connected to an optical multiplexer.

Construction of a new multiplexer at the central office location requires adequate space in an available relay rack. Similarly, installation of a new multiplexer at the end user's location requires both adequate space and a commercial power source for the multiplexer. The installation of a new multiplexer in the central office is performed by third party vendors and is similar to the process described in A.3 above including, ordering the equipment and appropriate common cards, installing the equipment and cards, cabling to the appropriate intermediate termination points in the central office (DSX panels, etc), testing, and updating of inventory systems. The installation of a multiplexer in a remote terminal or end user location involves a similar procedure and is performed by Verizon technicians. Without this construction work, the facilities necessary to provision the service do not exist and cannot be unbundled.

Between January and June 2002, 30.5% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.

¹¹ Pole line Rights of Way (and applicable construction charges), or conduit and/or trenches would have to be delivered by the property owner.

6. No Capacity for the Service Requested on Existing Multiplexer.

Multiplexers deployed in Verizon's network typically may be configured to serve, among other things, both DS-1 and DS-3 services. When multiplexers are initially deployed, an initial muldem on the multiplexer is wired to support either DS-1 or DS-3 services.¹² As orders for that service are received, line cards are placed in slots on the multiplexer to provision the order. Although Verizon is not required to do so, where there are spare slots for the service requested Verizon orders and installs the line cards necessary to provision CLEC UNE loop orders. Once the slots for the line cards are filled, however, no more orders for service can be provisioned until a new muldem is constructed, wired for service, and the line card slots are inventoried.

The type of construction required to create additional multiplexer capacity varies depending upon whether the muldem is configured to serve DS-1 or DS-3 services. To install a muldem to support DS-1 loop orders, significant work is required at both the central office and remote terminal locations. The work is similar at each location. First a Telephone Equipment Order (TEO) is developed and issued to a vendor for the central office work. An Engineering Work Order (EWO) is similarly issued for the remote terminal location, which is performed by Verizon technicians. Central office plug-ins are ordered and the cabling work is scheduled with the vendor. Cable is run from the multiplexer to a DSX panel where 56 wiring terminations are made on the panel. Similar work is done at the remote terminal location.¹³ Until this construction work is performed, the facilities necessary to provision the services do not exist and cannot be unbundled.

Between January and June 2002, 3.5% of the total number of CLEC high capacity loop orders rejected in the former Bell Atlantic South states were rejected for this reason.¹⁴

Please associate this notification with the record in the proceedings indicated above. If you have any questions regarding this matter, please call me at (202) 515-2530.

Sincerely,



W. Scott Randolph

cc: Tom Navin Brent Olsen
 Jeremy Miller Mike Engel

¹² A muldem is a multiplexer/demultiplexer combination. A typical multiplexer has multiple muldems. When Verizon installs a multiplexer in its network, it may not wire and activate all muldems in the multiplexer. As additional multiplexer capacity is needed, additional muldems in the multiplexer need to be wired and activated. This work is performed both by outside vendors and by Verizon technicians.

¹³ To install a muldem to support DS-3 loop orders, similar cabling work is required at both the CO and remote terminals but a different plug in configuration is required for DS3 service in a multiplexer.

¹⁴ 3.8% of the rejected orders are not categorized into one of these categories.

Attachment 3

New Hampshire Public Utilities Commission

Docket No. 02-110

Order No. 24,265

January 16, 2004

Excerpt

DT 02-110

VERIZON NEW HAMPSHIRE

Investigation into Cost of Capital

Order Establishing Cost of Capital

O R D E R N O. 24,265

January 16, 2004

APPEARANCES: Victor D. Del Vecchio, Esq. for Verizon New Hampshire; Swidler Berlin Shereff Friedman, LLP by Philip J. Macres, Esq. and Eric J. Branfman, Esq. on behalf of Freedom Ring Communications, LLC d/b/a BayRing Communications; Laura Gallo, Esq., Kenneth W. Salinger, Esq., and Katherine A. Davenport, Esq. for WorldCom, Inc.(now MCI Communications, Inc.); F. Anne Ross, Esq. for the Office of the Consumer Advocate on behalf of residential ratepayers, E. Barclay Jackson, Esq. for the Staff of the New Hampshire Public Utilities Commission.

I. PROCEDURAL HISTORY

The New Hampshire Public Utilities Commission (Commission) initiated this docket, by Order of Notice dated June 28, 2002, to determine the appropriate cost of capital for Verizon New Hampshire (Verizon) and to examine whether recurring TELRIC¹ rates should be modified to take into account a revised cost of capital. Motions to intervene in the matter were filed by Otel Telekom, Inc.(Otel); Global NAPS, Inc. (Global NAPS); Conversent Communications of New Hampshire, LLC (Conversent); CTC Communications Corporation (CTC), Dieca Communications Inc.

¹ TELRIC, or total element long run incremental cost, has been approved by the Federal Communications Commission (FCC) as the appropriate methodology for establishing rates for unbundled network elements.

of capital. There is no requirement under FCC rules or the TAct that a separate cost of capital be specified for UNE rates.

We conclude that it is reasonable to view the company as a whole to arrive at a weighted average cost of capital. This overall cost of capital will be utilized by Verizon for jurisdictional filings that require cost studies that call for an estimate of the cost of capital. More specifically, we will use this overall weighted average cost of capital to modify TELRIC rates; we will also use this overall weighted cost of capital in any future retail rate case and in examining Verizon's earnings going forward.

B. UNE Risk Premium

There are several infirmities with regard to the 5.48 percent risk premium Verizon proposes to add to its overall cost of capital which prevent us from adopting it. In particular, the method advanced by Verizon's witness Dr. Vander Weide to derive the risk premium is inapplicable to the UNE situation.

In the article cited by Dr. Vander Weide to support his UNE risk premium (Copeland and Weston), the authors developed a method to estimate the appropriate cost (and associated internal rate of return) for a cancelable equipment lease, as opposed to a non-cancelable equipment lease. According to Copeland and Weston, if a lessee can cancel an equipment lease, the lessor must adjust the lease fee upwards

from a non-cancelable lease fee to reflect any uncertainty as to the likely economic value of the property at the times when the lessee may exercise this option. The risk is on the lessor, and the required lease payments and internal rate of return must reflect this assumed risk. The authors point out that from the lessor's point of view, a cancelable lease is equivalent in value to a pure financial lease (which cannot be cancelled and which, according to the authors, has a cost equal to the cost of debt), minus an American put option with a declining exercise price. *Id.*, at 60.

Dr. Vander Weide calculated his 5.48% risk premium drawing on the arguments developed in the paper, and added it to his estimate of 12.45% weighted average retail cost of capital, to arrive at his recommended 17.93% weighted average UNE cost of capital. Whatever the merits of the cancelable lease analogy to the UNE line of business, we find that it is not appropriate to use the Copeland/Weston formulas to develop a UNE risk premium, and add the resulting premium to an overall cost of capital to develop a separate rate of return for UNE leasing.

Second, use of the Copeland/Weston theory in the UNE context implicitly assumes that it is only the action of the lessee in demanding cancelability that subjects Verizon to the risk of cancellation. As the CLEC parties pointed out, it is Verizon that restricts CLEC UNE leases to one-month terms, and

declines to offer longer term non-cancelable UNE leases. Presumably this is a result of a judgment by Verizon that its risk is decreased, not increased, by shorter terms, notwithstanding the associated exposure to increased risk of CLEC discontinuance of service.

The analogy between Copeland/Weston and the UNE line of business breaks down further as the value of the premium depends fundamentally on the investment required to serve the lease (Version Att. A, p. 65). Copeland/Weston state that a higher investment expense produces a higher premium (*id.*, pp. 64-5). However, as we have noted above, Verizon is not required to incur investment expenses explicitly for CLEC lines of business.

In addition, as stated in footnote 6 of Copeland/Weston, the lessor must, when faced with a cancellation of a lease, either "a) sell the asset at market value, or b) lease it again at a lower rate." We find neither of these scenarios persuasive for the actual business of a regulated provider of UNEs. We note that the possibility of the leased asset returning to the retail side of Verizon's business and earning a higher return than the original UNE lease is inappropriately excluded from the application of Copeland/Weston to UNEs.

Finally, no reasonable basis has been advanced in this case to apply a cancelable lease analogy to the UNE business, as opposed to the retail business. With the exception of individual long term contracts or special tariffs, none of Verizon's customers, wholesale or retail, are bound to remain with Verizon. Arguably, any premium that may apply to reflect the cancelable nature of the use of Verizon's facilities applies to retail service as well as wholesale service. However, as we note above, we have no basis on this record to differentiate the risk of retail and UNE business. In any event, the risk of revenue loss from demand reductions is captured in the overall rate of return, properly set, as is all risk facing the firm.

The Copeland/Weston argument, while perhaps sound for the purpose for which it was conceived, is not appropriate for application to the UNE business. For these reasons, it would be inappropriate to add the proposed premium to the UNE prices, and we decline to do so.

C. Capital Structure

In *Appeal of Conservation Law Foundation of New England*, 127 N.H. 606 at 636, 507 A.2d 652 (1986), the New Hampshire Supreme Court opined that in setting a reasonable rate of return for a regulated company, the Commission must look both at capital costs and comparable risks outside the company and also at the "actual circumstances" of the company. *Id.* at 635.